

Traffic Operations Review *- FINAL Rev.0*

Ministry of Transportation and Infrastructure

Highway 1 Ladysmith

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BINNIE CONSULTING LTD.

300 - 4940 Canada Way,
Burnaby, BC V5G 4K6
Main: 604-420-1721

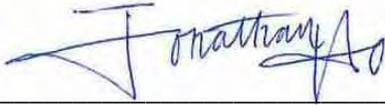


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BINNIE

Prepared by: 
Max Leung, EIT

Reviewed by: 
Kelly Bullivant, P.Eng.

Approved by: 
Jonathan Ho, P.Eng., PTOE

PROJECT TEAM MEMBER LIST

Project Manager:

Jonathan Ho, P.Eng., PTOE

Technical Staff:

Kelly Bullivant, P.Eng.

Max Leung, EIT

Gurjit Rajput

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1 INTRODUCTION

1.1 Background

R.F. Binnie & Associates Ltd. (Binnie) has been retained by the Ministry of Transportation and Infrastructure (the MOTI) under the current Traffic Engineering General Services Contract No. 880CS0933 to perform a traffic operation review on the Trans Canada Highway (Highway 1) segment through the Town of Ladysmith (the Town). The six intersections reviewed in this report are as follows:

- Highway 1 and Grouhel Road
- Highway 1 and Ludlow Road/1st Avenue
- Highway 1 and Transfer Beach Boulevard/Roberts Street
- Highway 1 and N. Davis Road
- Highway 1 and S. Davis Road
- Highway 1 and Edgelow Road S./Thicke Road

The purpose of this review is to evaluate the performance of these intersections and to provide recommendations for safety and performance improvements. The review will also evaluate the current pedestrian accommodations along this route and provide recommendations for improvement. For this report, Highway 1 is described in the north-south orientation while the minor roads are in the east-west orientation.

The study area is shown in **Figure 1-1**.

1.2 Study Objectives

The objectives of this traffic operations review are outlined as follows:

- Complete traffic signal warrant analysis at select intersections;
- Review existing pedestrian demands across Highway 1 and assess opportunities to improve pedestrian accommodations;
- Review existing operating speeds, vehicle classifications, and collision data on the highway; and
- Review the existing intersection operations at the six study intersections and determine if improvements are required to address existing operational and safety issues.

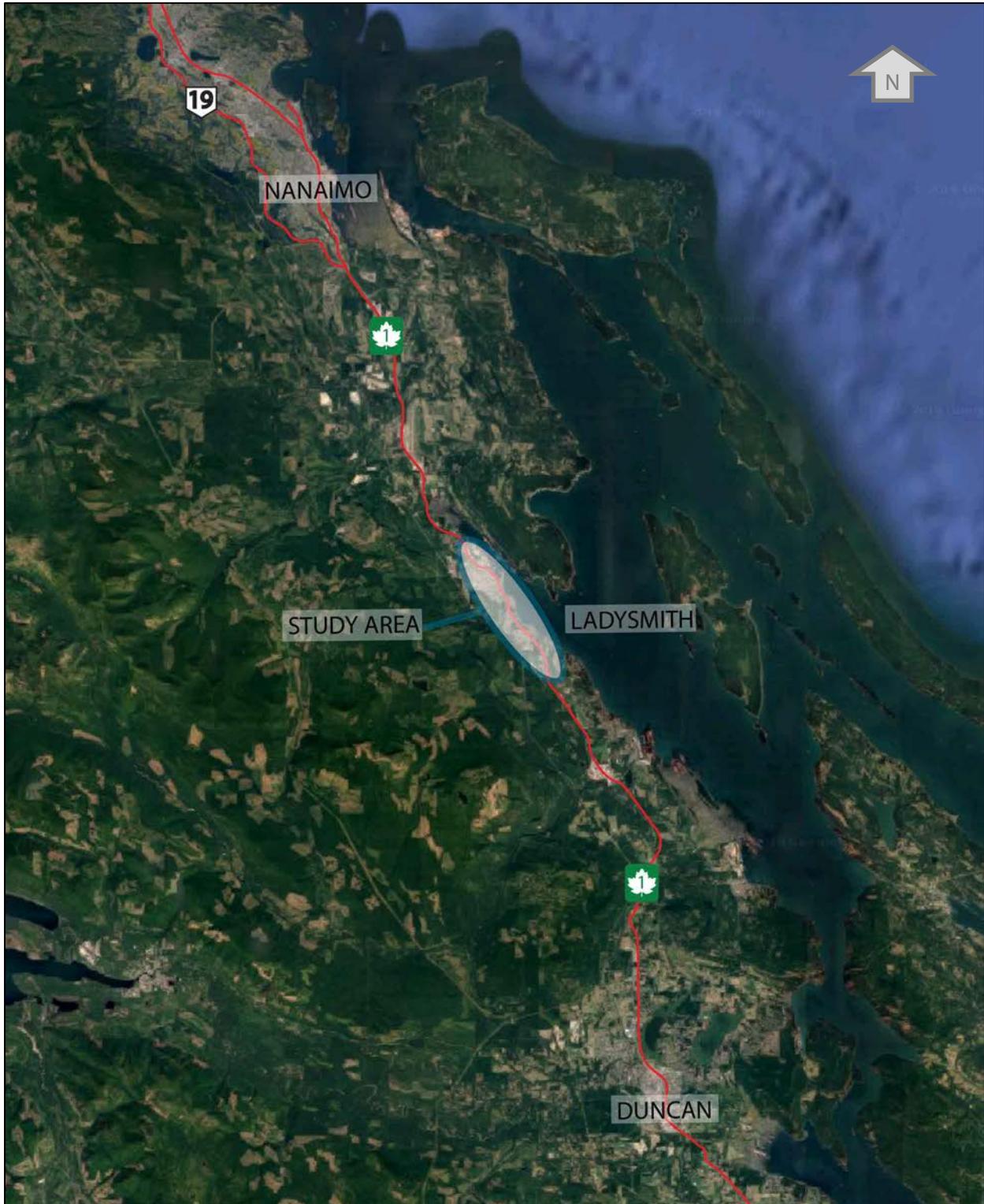


Figure 1-1: Map of Study Area

2 EXISTING CONDITIONS

2.1 Study Road Network

2.1.1 Highway 1

Highway 1 is a major highway that connects the communities on the east side of Vancouver Island and is under the jurisdictions of the MOTI. Within the study area, the highway has a four-lane cross-section, generally runs in the north-south direction through the Town, and has a posted speed of 70 km/h to 90 km/h. A railway track runs adjacent to Highway 1 on the east side.

The highway serves as a major link for the movement of goods and services across Vancouver Island; therefore, trucks make up a high percentage of the highway traffic demands. In addition to truck traffic, Highway 1 also facilitates commuter traffic to and from the nearby City of Nanaimo (Nanaimo).

2.1.2 Grouhel Road

Grouhel Road is a local two-lane roadway that generally runs in the east-west direction and has an assumed speed limit of 50km/h. The existing shoulders are generally grass and narrow, and there are no sidewalks provided. Grouhel Road provides access to a rural residential area.

2.1.3 Ludlow Road/1st Avenue

Ludlow Road/1st Avenue is a collector roadway that runs in the east-west direction. East of Highway 1, Ludlow Road intersects with the existing railroad and provides access to a commercial and industrial area of the Town. To the west of Highway 1, Ludlow Road becomes 1st Avenue, which provides access to the Town and connects residents to Highway 1. Ludlow Road has a four-lane cross-section and 1st Avenue has a two-lane cross-section. Ludlow Road has a posted speed of 40 km/h and 1st Avenue has a posted speed of 30 km/h.

2.1.4 Transfer Beach Boulevard/Roberts Street

Transfer Beach Boulevard/Roberts Street is a two-lane roadway that generally runs in the east-west direction. The roadway has a posted speed of 30 km/h. East of Highway 1, Transfer Beach Boulevard intersects with the existing railroad and connects vehicles to the Town's Transfer Beach Park. To the west of Highway 1, Transfer Beach Boulevard becomes Roberts Street. Roberts Street provides access to the Town and connects residents to Highway 1.

2.1.5 N. Davis Road

N. Davis Road is a two-lane roadway that primarily runs in the east-west direction and has an assumed speed limit of 50km/h. There are existing shoulders and sidewalks provided along the roadway. N. Davis Road provides access to residential and commercial areas.

2.1.6 S. Davis Road

S. Davis Road is a local two-lane roadway that generally runs in the east-west direction and has an assumed speed limit of 50km/h. The existing shoulders are narrow and there are no sidewalks provided. S. Davis Road provides access to a residential area.

2.1.7 Edgelow Road S./Thicke Road

Edgelow Road S./Thicke Road is a two-lane roadway that generally runs in the east-west direction and has an assumed speed limit of 50 km/h. To the west of Highway 1, Edgelow Road S. becomes Thicke Road. The existing shoulders are generally grass and narrow and there are no sidewalks provided. The roadway provides access to a rural residential area.

2.2 Study Intersections

The study road network is an approximately seven km long section of Highway 1 located on Vancouver Island that runs through the Town. It spans from north of the Highway 1 and Grouhel Road intersection to south of the Highway 1 and Edgelow Road S./Thicke Road intersection. The study road network includes the following four signalized intersections:

- Highway 1 and Ludlow Road/1st Avenue intersection
- Highway 1 and Transfer Beach Boulevard/Roberts Street intersection
- Highway 1 and N. Davis Road intersection
- Highway 1 and Edgelow Road S./Thicke Road

The study road network also includes the following two unsignalized intersections:

- Highway 1 and Grouhel Road intersection
- Highway 1 and S. Davis Road intersection

2.2.1 Highway 1 and Grouhel Road Intersection

The intersection of Highway 1 and Grouhel Road is an unsignalized three-legged intersection. The west approach from Grouhel Road is stop-controlled while Highway 1 is free-flowing. The highway has two through lanes in each direction with a northbound left-turn lane and a southbound channelized right-turn lane at the intersection. The eastbound movement has a shared left-turn/right-turn lane, with the right-turn movement channelized. A marked pedestrian crosswalk is provided across the west approach of the intersection.

2.2.2 Highway 1 and Ludlow Road/1st Avenue Intersection

The intersection of Highway 1 and Ludlow Road/1st Avenue is a signalized four-legged intersection. In each direction, the highway has a left-turn lane, two through lanes, and a channelized right-turn lane. The east approach has a left-turn lane, one through lane, and one right-turn lane with an acceleration lane onto the highway. The west approach has a left-turn lane and one shared through/right-turn lane. Vehicles are not permitted to park or stop in the vicinity of the intersection due to the presence of an existing at-grade railway crossing. There are marked pedestrian crosswalks on the east, south, and west approaches of the intersection.

2.2.3 Highway 1 and Transfer Beach Boulevard/Roberts Street Intersection

The intersection of Highway 1 and Transfer Beach Boulevard/Roberts Street is a signalized four-legged intersection. In each direction, the highway has a left-turn lane and two through lanes. The southbound

curb lane is a shared through/right-turn movement, while in the northbound direction, there is a channelized right-turn lane. The east approach has one shared left-turn/through lane and one shared through/right-turn lane, with the right-turn movement channelized. The west approach has one shared left-turn/through lane and one right-turn lane. There are marked pedestrian crosswalks on all four approaches of the intersection.

2.2.4 Highway 1 and N. Davis Road Intersection

The intersection of Highway 1 and N. Davis Road is a signalized four-legged intersection. In each direction, the highway has a left-turn lane, two through lanes, and a channelized right-turn lane. The east approach has a shared left-turn/through lane and a channelized right-turn lane. The west approach has one left-turn lane and one shared through/right-turn lane, with the right-turn movement channelized. Vehicles are not permitted to park or stop in the vicinity of the intersection due to the presence of an existing at-grade railway crossing. There are marked pedestrian crosswalks on the north, east, and west approaches of the intersection.

2.2.5 Highway 1 and S. Davis Road Intersection

The intersection of Highway 1 and S. Davis Road is an unsignalized four-legged intersection. The east and west approaches are stop-controlled while Highway 1 is free-flowing. In each direction, the highway has a left-turn lane, two through lanes, and a channelized right-turn lane. The east and west approaches have one shared left-turn/through/right-turn lane, with the right turn movement channelized.

2.2.6 Highway 1 and Edgelow Road S./Thicke Road Intersection

The intersection of Highway 1 and Edgelow Road S./Thicke Road is a signalized four-legged intersection. In each direction, the highway has a left-turn lane and two through lanes. The northbound curb lane is a shared through/right-turn movement with the right-turn movement channelized, while in the southbound direction, there is a channelized right-turn lane. The east and west approaches have one shared left-turn/through/right-turn lane. Vehicles are not permitted to park or stop in the vicinity of the intersection. There are marked pedestrian crosswalks on the north, east, and west approaches of the intersection.

2.3 Traffic Volumes

Existing traffic volumes were collected by TransTech Data Services Ltd. (TransTech) on August 9, 2018 for the six study intersections during the weekday AM peak period and PM peak period.

Based on the traffic volume data collected, the AM peak hour of the study corridor was generally found to be from 08:00 to 09:00, with the dominant flow in the southbound direction along Highway 1. The PM peak hour was generally found to be from 16:15 to 17:15, with the dominant flow in the northbound direction.

The study intersections were found to have the following approximate traffic volumes during the AM peak and PM peak hours:

- Highway 1 and Grouhel Road: 1,950 vehicles in the AM peak hour and 3,050 vehicles in the PM peak hour

- Highway 1 and Ludlow Road/1st Avenue: 2,100 vehicles in the AM peak hour and 3,200 vehicles in the PM peak hour
- Highway 1 and Transfer Beach Boulevard/Roberts Street: 1,900 vehicles in the AM peak hour and 3,000 vehicles in the PM peak hour
- Highway 1 and N. Davis Road: 1,950 vehicles in the AM peak hour and 3,200 vehicles in the PM peak hour
- Highway 1 and S. Davis Road: 1,550 vehicles in the AM peak hour and 2,450 vehicles in the PM peak hour
- Highway 1 and Edgelow Road S./Thicke Road: 1,500 vehicles in the AM peak hour and 2,350 vehicles in the PM peak hour

The unadjusted turning movement count data are attached to this report in **Appendix A**. The existing traffic volumes for the study intersections are shown below in **Figure 2-1**.

2.4 Pedestrian and Cyclist Accommodation

There are pedestrian sidewalks provided along the west side of Highway 1 between the Ludlow Road/1st Avenue and Methuen Street intersections. Additionally, intersections that connect to the Town's downtown area often have a sidewalk on at least one side of the minor roadway to accommodate pedestrians. There are marked crosswalks at the following intersections within the study area:

- Highway 1 and Grouhel Road (unsignalized) – west approach
- Highway 1 and Ludlow Road/1st Avenue (signalized) – east, south, and west approaches
- Highway 1 and Kitchener Street (unsignalized) – west approach
- Highway 1 and Buller Street (unsignalized) – west approach
- Highway 1 and High Street (unsignalized) – west approach
- Highway 1 and Gatacre Street (unsignalized) – west approach
- Highway 1 and Transfer Beach Boulevard/Roberts Street (signalized) – all four approaches
- Highway 1 and Baden Powell Street (unsignalized) – west approach
- Highway 1 and N. Davis Road (signalized) - north, east, and west approaches
- Highway 1 and Edgelow Road S./Thicke Road (signalized) - north, east, and west approaches

Additionally, there is a Highway 1 pedestrian underpass located approximately 200 m south of Methuen Street that provides an alternate route across the highway for pedestrians and cyclists. The underpass provides a connection between the residential area west of the highway and Transfer Beach Park, east of the highway.

Based on information from the Town's website, there are two designated trail routes in the vicinity of the Highway 1 study corridor. The Heritage Walk Trail connects the downtown area to the waterfront via the Highway 1 and Transfer Beach Boulevard/Roberts Street intersection. The Town's section of the Trans Canada Trail is approximately 4.6 km long and crosses Highway 1 at the Ludlow Road/1st Avenue

intersection, the N. Davis Road intersection, and the pedestrian underpass. These trails are commonly used by both pedestrians and cyclists.

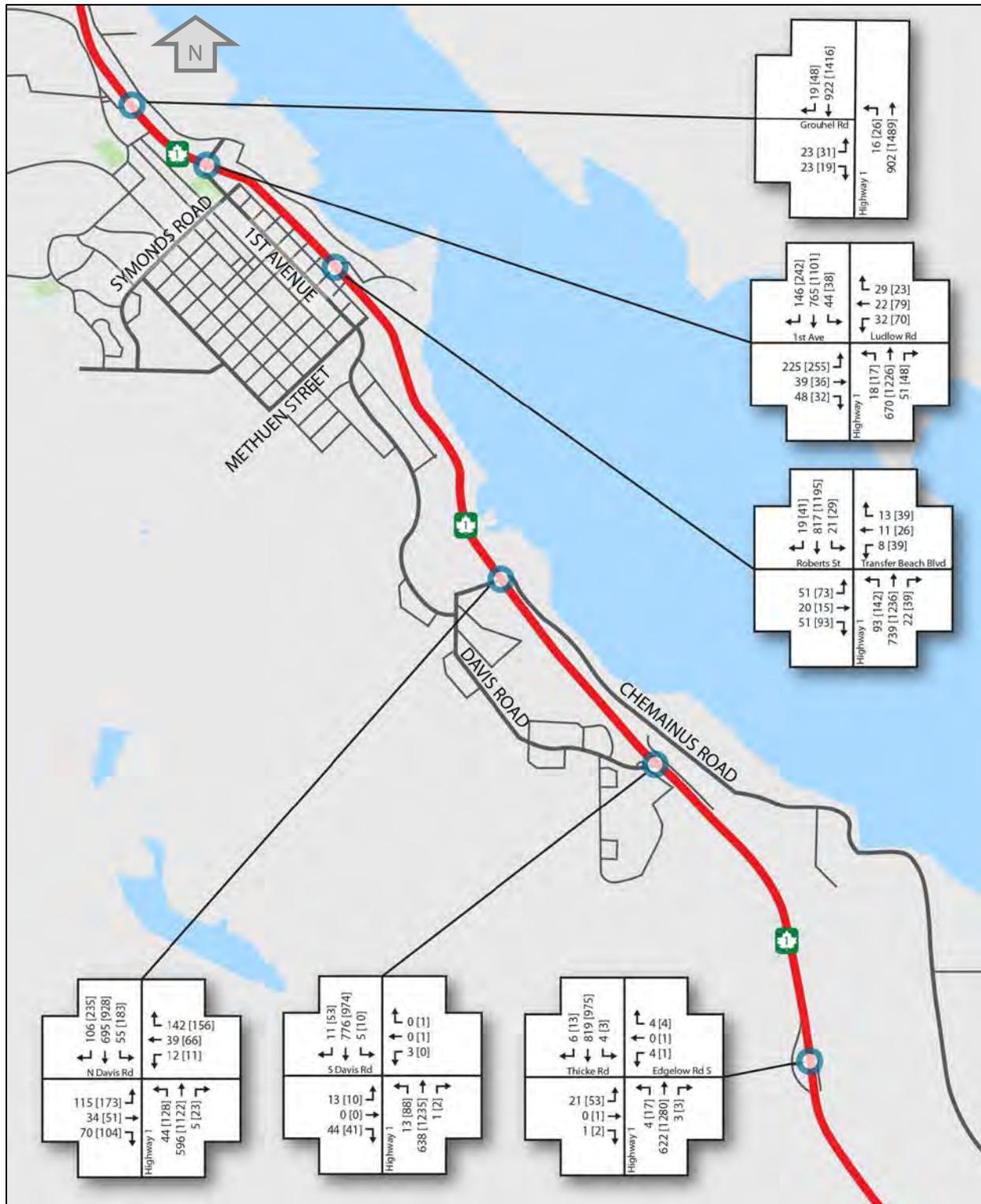


Figure 2-1: Existing Traffic Volumes

3 TRAFFIC OPERATION REVIEW

3.1 Traffic Signal Warrants

Binnie performed MOTI traffic signal warrant analysis at the following intersections:

- Highway 1 and Grouhel Road
- Highway 1 and S. Davis Road

Additionally, Binnie performed a MOTI left-turn signal warrant analysis for the following movement:

- Southbound left-turn movement at the Highway 1 and Transfer Beach Boulevard/Roberts Street

The traffic signal warrants assumed an annual growth rate of 2%.

Based on the existing and forecast traffic volumes, a traffic signal is not warranted at the Highway 1 and Grouhel Road intersection unless there is considerable traffic that would detour from the Highway 1 and Ludlow Road/1st Avenue intersection to this intersection should it be signalized. The Highway 1 and S. Davis Road intersection is not warranted for a traffic signal.

The southbound left-turn movement on Highway 1 and Transfer Beach Boulevard/Roberts Street also does not warrant a protected or protected-permissive left-turn traffic signal based on existing and forecast traffic volumes.

The detailed MOTI traffic signal warrant analysis and left-turn signal warrant analysis for the above intersections are summarized in **Appendix B**.

3.2 Pedestrian Crossing Demand

Existing pedestrian volumes were also collected by TransTech at the following locations:

- Highway 1 and Buller Street on Thursday, August 9, 2018 from 8:00 AM to 8:00 PM
- Highway 1 pedestrian underpass near Methuen Street on Sunday, August 12, 2018 from 8:00 AM to 8:00 PM

The Highway 1 and Buller Street intersection is unsignalized and only permits the right-in/right-out (RIRO) and left-in movements. There is a marked crosswalk across the west side street approach; however, there are no marked pedestrian accommodations provided across Highway 1. Based on the collected data, 43 pedestrians were found to cross Highway 1 at Buller Street in a 12-hour period. The peak hour was found to be from 6:00 PM to 7:00 PM with 12 pedestrians crossing Highway 1 during this time.

It is assumed that pedestrians cross at Buller Street to access the Trans Canada Trail, which is easily accessible via a dirt road on the east side of the highway. The nearest Highway 1 pedestrian crossing is approximately 300 m south of Buller Street at the Transfer Beach Boulevard/Roberts Street intersection. It is recommended that a grade-separated pedestrian crossing be provided to accommodate vulnerable

road users near this location. Further discussions between the MOTI and the Town should be undertaken to determine the best location for a pedestrian crossing and what improvements may be necessary along Highway 1 to accommodate it, including the compatibility with the potential waterfront developments planned by the Town.

The Highway 1 pedestrian underpass near Methuen Street provides access between the residential area west of the highway and Transfer Beach Park, Ladysmith Amphitheater, and the waterfront area. Additionally, the pedestrian underpass is part of the Trans Canada Trail. Based on the collected data, 171 pedestrians were found to use the underpass in a 12-hour period. A noticeable increase in use of the pedestrian underpass occurred during the evening. The peak hour was found to be from 5:15 PM to 6:15 PM with 30 pedestrians using the underpass during this time.

3.3 Highway 1 Operating Speeds

Existing two-way vehicle operating speed data were collected by TransTech along Highway 1 from August 9, 2018 to August 15, 2018, for 24 hours per day, at the following locations along Highway 1:

- North of Grouhel Road
- Between Ludlow Road/1st Avenue and Transfer Beach Boulevard/Roberts Street
- 700 m south of Transfer Beach Boulevard/Roberts Street
- Between N. Davis Road and S. Davis Road
- 400 m south of S. Davis Road
- 400 m south of Edgelow Road S./Thicke Road

Currently, Highway 1 southbound traffic transitions from 90 km/h to 70 km/h approximately two km north of the Grouhel Road intersection, while the northbound traffic transitions from 70 km/h to 90 km/h approximately 100 m north of the intersection. North of Grouhel Road, the existing average vehicle speed on Highway 1 was found to be between 95 km/h and 100 km/h for both northbound and southbound traffic, while the 85th percentile vehicle speed was found to be between 105 km/h and 110 km/h for both directions.

Between Ludlow Road/1st Avenue and Transfer Beach Boulevard/Roberts Street, the Highway 1 posted speed limit is 70 km/h. The existing average vehicle speed was found to be between 65 km/h and 70 km/h for southbound traffic and between 75 km/h and 80 km/h for northbound traffic. The 85th percentile vehicle speed was found to be between 75 km/h and 80 km/h for southbound traffic and between 85 km/h and 90 km/h for northbound traffic.

Approximately 700 m south of Transfer Beach Boulevard/Roberts Street near Gifford Road, Highway 1 southbound traffic transitions from 70 km/h to 90 km/h, while the northbound traffic transitions from 90 km/h to 70 km/h. The existing average vehicle speed was found to be between 80 km/h and 85 km/h for southbound traffic and approximately 70 km/h for northbound traffic. The 85th percentile vehicle speed was found to be between 90 km/h and 100 km/h for southbound traffic and approximately 85 km/h for northbound traffic.

Between N. Davis Road and S. Davis Road, the existing posted speed limit along Highway 1 is 90 km/h. The existing average vehicle speed was found to be between 95 km/h and 100 km/h for both northbound traffic and southbound traffic. The 85th percentile vehicle speed was found to be approximately 105 km/h for both directions.

400 m south of S. Davis Road, the existing posted speed limit along Highway 1 is 90 km/h. The existing average vehicle speed was found to be approximately 100 km/h for both northbound traffic and southbound traffic. The 85th percentile vehicle speed was found to be approximately 110 km/h for southbound traffic and between 110 km/h and 115 km/h for northbound traffic.

400 m south of Edgelow Road S./Thicke Road, the existing posted speed limit along Highway 1 is 90 km/h. The existing average vehicle speed was found to be between 95 km/h and 100 km/h for both northbound traffic and southbound traffic. The 85th percentile vehicle speed was found to be between 105 km/h and 110 km/h for southbound traffic and between 110 km/h and 115 km/h for northbound traffic. Currently, the nearest northbound posted speed limit sign is approximately 2.6 km south of the intersection.

Along the entire study corridor, the existing vehicle operating speed along Highway 1 is approximately 10 km/h to 25 km/h higher than the posted speed limit, as can be seen in **Table 3-1**.

Table 3-1: Summary of Existing Speed Classification

| Highway 1 Location / | North of | Between Ludlow | Near Gifford | Between N. | 400m south | 400m south |
|---------------------------|----------|----------------|--------------|------------|------------|------------|
| Posted Speed | 70 | 70 | 70 | 90 | 90 | 90 |
| NB Average | 95-100 | 75-80 | 70 | 95-100 | 100 | 95-100 |
| NB 85th Percentile | 105-110 | 85-90 | 85 | 105 | 110-115 | 110-115 |
| SB Average | 95-100 | 65-70 | 80-85 | 95-100 | 100 | 95-100 |
| SB 85th Percentile | 105-110 | 75-80 | 90-100 | 105 | 100 | 105-110 |

Based on the MOTI’s *Technical Circular T-04/14 Corridor Speed Limit Procedure and Speed Limit Approvals*, dated June 23, 2014, the posted speed limit on a MOTI highway correlates, in part, with the 85th percentile vehicle operating speed on a highway segment in ideal conditions. Historically, when the posted speed limit is inconsistent with the speed that drivers are comfortable travelling at through a highway segment, issues such as driver frustration, excessive speeding, and unsafe driving manoeuvres can arise.

Given that in each segment of the study corridor the 85th percentile vehicle operating speed is higher than the posted speed limit, any further speed limit reduction is expected to have low compliance by drivers and it may potentially exacerbate any current safety concerns, e.g., significant speed differentials in operating speed that could result in more serious collisions; therefore, it is recommended that the current posted speed limits within the study area of Highway 1 be maintained and perform periodic enforcement to ensure the operating speed is consistent with the posted speed.

3.4 Highway 1 Vehicle Classification

Existing two-way vehicle classification data were collected by TransTech along Highway 1 from August 9, 2018 to August 15, 2018, for 24 hours per day, at the following locations along Highway 1:

- North of Grouhel Road
- Between Ludlow Road/1st Avenue and Transfer Beach Boulevard/Roberts Street
- 700 m south of Transfer Beach Boulevard/Roberts Street
- Between N. Davis Road and S. Davis Road
- 400 m south of S. Davis Road
- 400 m south of Edgelow Road S./Thicke Road

The vehicle survey classifies the following vehicle types as passenger vehicles:

- Motorcycles
- Passenger cars, including those with recreational trailers
- Two-axle pickup trucks, vans, and RVs, including those with recreational trailers

The vehicle survey classifies the following vehicle types as heavy trucks:

- Buses
- Two-axle, six-wheel vehicles
- Three+ axle vehicles as a single or double unit

Based on the data collected, two-way traffic along Highway 1 within the study corridor is approximately 83% passenger vehicles and 17% heavy trucks. The vehicle classification data is summarized in **Table 3-2** and the unadjusted survey results are attached in **Appendix C**.

Table 3-2: Summary of Traffic Classification

| Highway 1 Location | Passenger Vehicles | | | Trucks | | |
|--|--------------------|-------|----------|--------|-------|----------|
| | NB | SB | Two-Way% | NB | SB | Two-Way% |
| North of Grouhel Rd | 84.4% | 83.3% | 83.9% | 15.6% | 16.7% | 16.2% |
| Between Ludlow Rd / 1st Ave and Near Gifford Rd | 84.1% | 82.2% | 83.2% | 15.9% | 17.8% | 16.9% |
| Between N. Davis Rd and S. Davis Rd | 82.2% | 82.9% | 82.6% | 17.8% | 17.1% | 17.5% |
| 400m south of S. Davis Rd | 84.0% | 83.4% | 83.7% | 16.0% | 16.6% | 16.3% |
| 400m south of Thicke Rd | 83.8% | 83.3% | 83.6% | 16.2% | 16.7% | 16.5% |
| Average | 83.3% | 83.0% | 83.2% | 16.7% | 17.0% | 16.9% |

The MOTI permanent count station P-12-3NS is located approximately 10 km north of the study area. In 2017, two-way traffic on Highway 1 was approximately 90% passenger vehicles and 10% heavy trucks, which supports the vehicle classification survey results.

3.5 Highway 1 Collision Data

Existing collision data at the study intersections were provided by the MOTI and the Insurance Corporation of British Columbia (ICBC). ICBC data were recorded from 2011 to 2015 and are based on driver reported collisions. The MOTI data were recorded from 2012 to 2016 and are based on police reported collisions. The collision summary reports are attached in **Appendix D**.

3.5.1 Highway 1 and Grouhel Road Intersection

Based on ICBC data, the Highway 1 and Grouhel Road intersection had 12 property damage only (PDO) incidents and 11 collisions with injuries caused to drivers or passengers during the five-year period. No fatalities were reported. The histogram in **Figure 3-1** summarizes the collision data provided by ICBC between 2011 and 2015.

Based on MOTI data, police responded to four collisions at this intersection between 2012 and 2016. Three of the collisions involved a vehicle making a 90° left-turn movement at the intersection, while one collision involved a vehicle leaving the travel lane to the right-hand side. **Figure 3-2** summarizes the type of collisions at the intersection of Highway 1 and Grouhel Road.

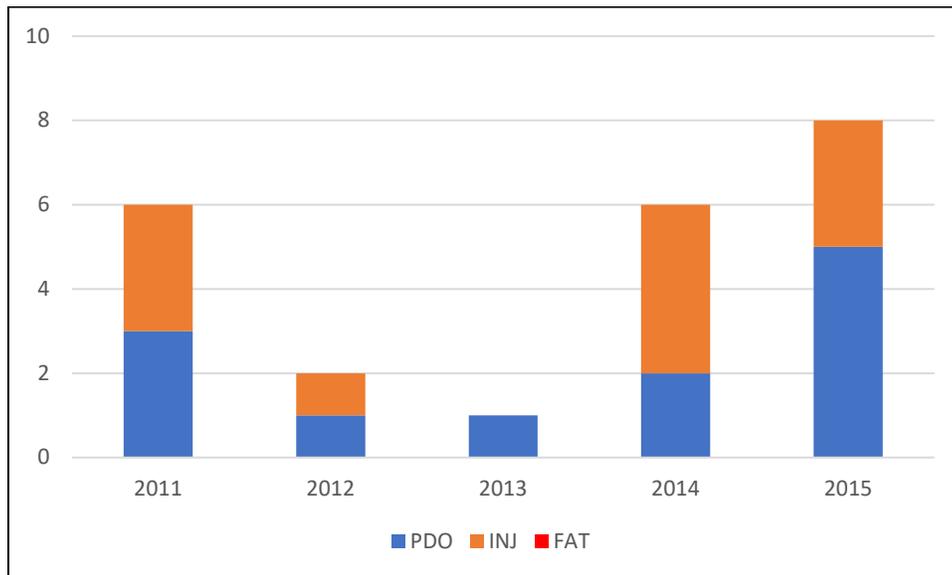


Figure 3-1: Collision Severity at Highway 1 and Grouhel Road

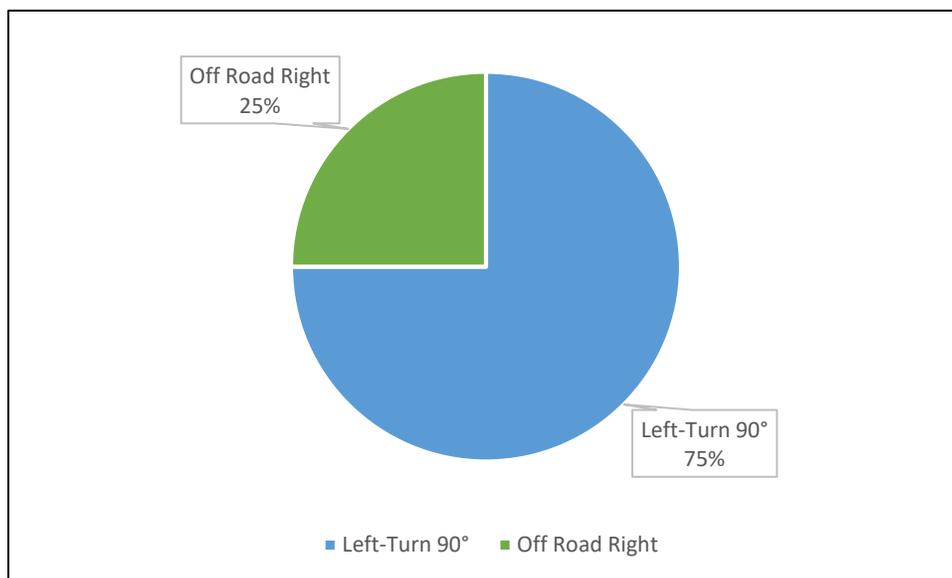


Figure 3-2: Collision Types at Highway 1 and Grouhel Road

3.5.2 Highway 1 and Ludlow Road/1st Avenue intersection

Based on ICBC data, the Highway 1 and Ludlow Road/1st Avenue intersection had 19 PDO incidents and ten collisions with injuries caused to drivers or passengers during the five-year period. No fatalities were reported. The histogram in **Figure 3-3** summarizes the collision data provided by ICBC between 2011 and 2015.

Based on MOTI data, police responded to eight collisions at this intersection between 2012 and 2016. Four of the incidents involved rear-end collisions, with two occurring in the northbound direction and two occurring in the southbound direction. Three collisions involved vehicles making the left-turn movement from the highway onto the side street, and one incident involved a head-on collision. **Figure 3-4** summarizes the type of collisions at the intersection of Highway 1 and Ludlow Road/1st Avenue.

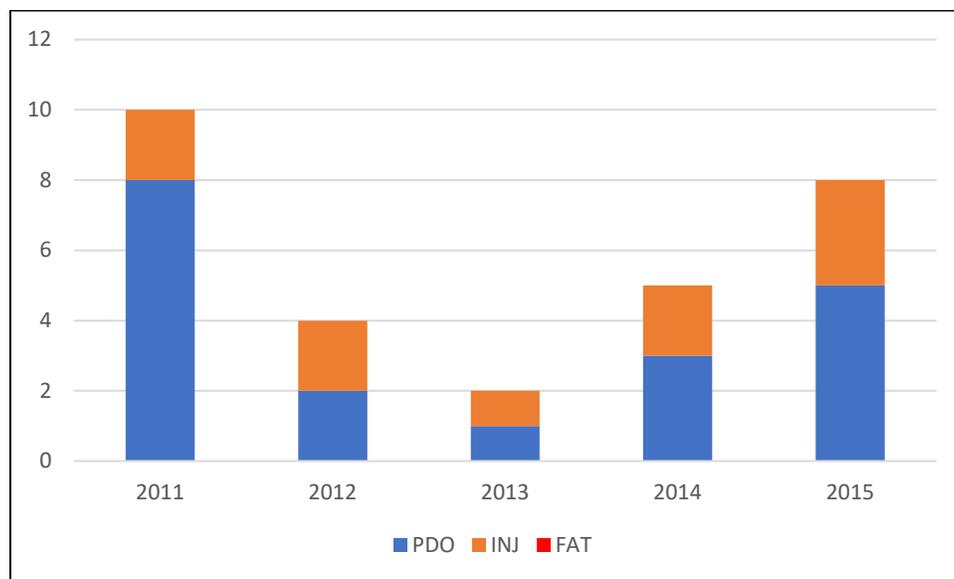


Figure 3-3: Collision Severity at Highway 1 and Ludlow Road/1st Avenue

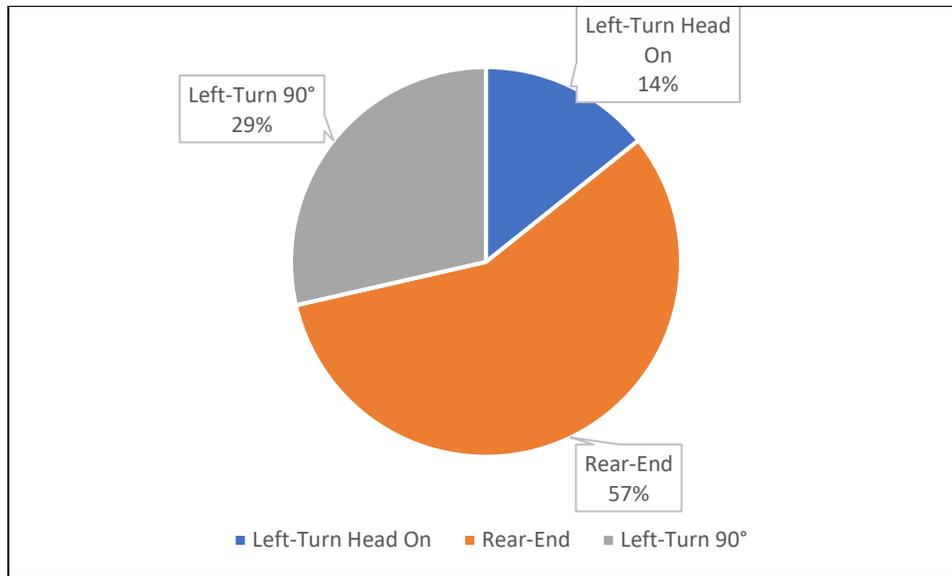


Figure 3-4: Collision Types at Highway 1 and Ludlow Road/1st Avenue

3.5.3 Highway 1 and Transfer Beach Boulevard/Roberts Street Intersection

Based on ICBC data, the Highway 1 and Transfer Beach Boulevard/Roberts Street intersection had 12 PDO incidents and 14 collisions with injuries caused to drivers or passengers during the five-year period. No fatalities were reported. The histogram in **Figure 3-5** summarizes the collision data provided by ICBC between 2011 and 2015.

Based on MOTI data, police responded to six collisions at this intersection between 2012 and 2016. Two of the incidents involved rear-end collisions in the northbound direction. Two collisions involved vehicles making the left-turn movement and one incident was a single vehicle leaving the travel lane. Lastly, one collision was reported as “other” and no further details were provided. **Figure 3-6** summarizes the type of collisions at the intersection of Highway 1 and Transfer Beach Boulevard/Roberts Street.

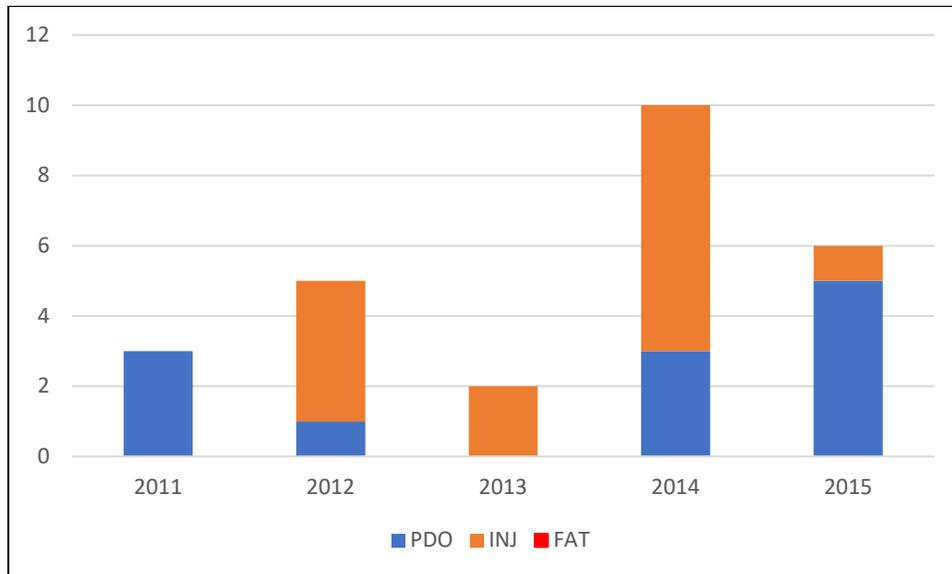


Figure 3-5: Collision Severity at Highway 1 and Transfer Beach Blvd./Roberts St.

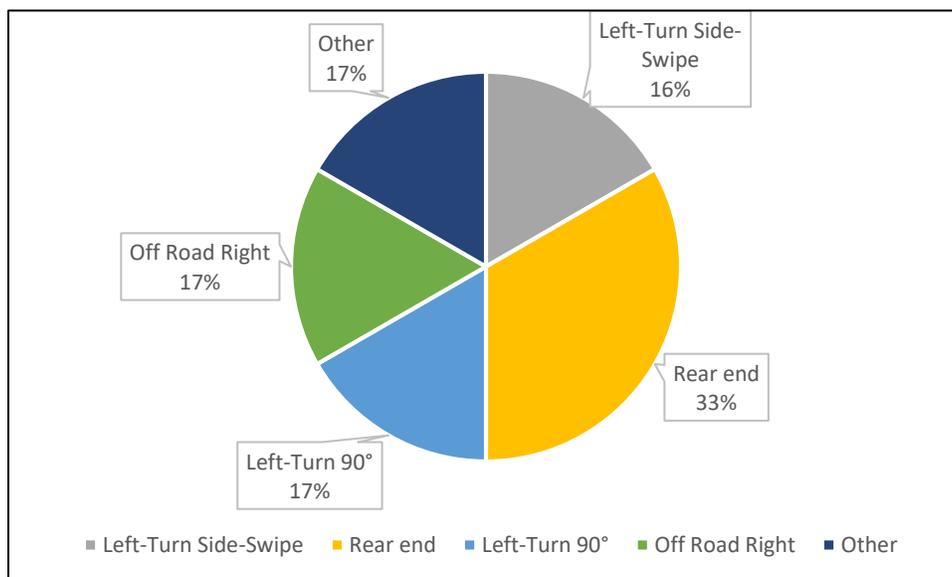


Figure 3-6: Collision Types at Highway 1 and Transfer Beach Blvd./Roberts St.

3.5.4 Highway 1 and N. Davis Road Intersection

Based on ICBC data, the Highway 1 and N. Davis Road intersection had 29 PDO incidents and 20 collisions with injuries caused to drivers or passengers during the five-year period. No fatalities were reported. The histogram in **Figure 3-7** summarizes the collision data provided by ICBC between 2011 and 2015.

Based on MOTI data, police responded to ten collisions at this intersection between 2012 and 2016. Seven of the incidents involved rear-end collisions with one in the southbound direction, five in the northbound direction, and one unspecified. One collision was a side-swipe incident during an overtaking manoeuvre and another incident was a single vehicle leaving the travel lane during

inclement weather conditions. Lastly, one collision involved hitting a wild animal. **Figure 3-8** summarizes the type of collisions at the intersection of Highway 1 and N. Davis Road.



Figure 3-7: Collision Severity at Highway 1 and N. Davis Road

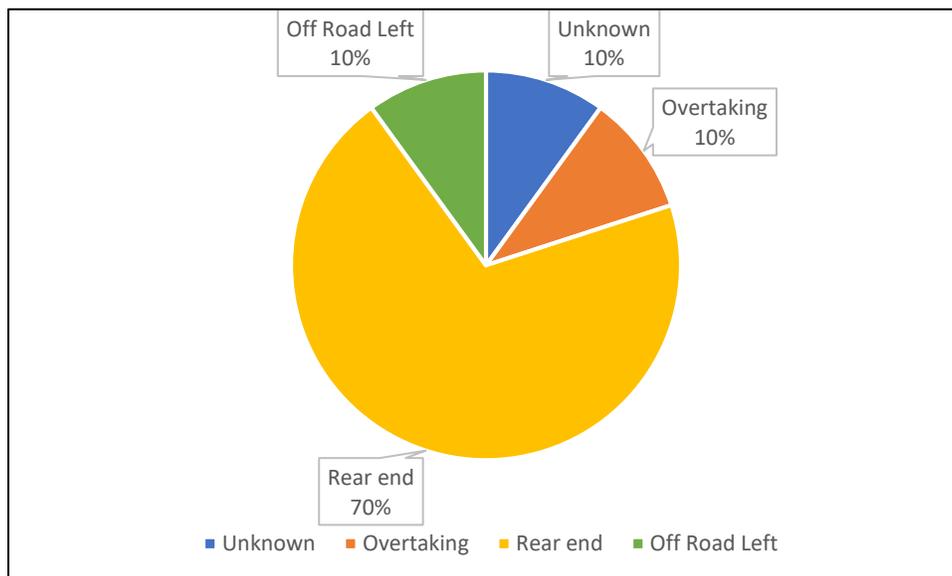


Figure 3-8: Collision Types at Highway 1 and N. Davis Road

3.5.5 Highway 1 and S. Davis Road Intersection

Based on ICBC data, there were no collisions at the Highway 1 and S. Davis Road between 2011 and 2015. Based on MOTI data, police responded to one rear-end collisions at this intersection between 2012 and 2016.

It is noted that in 2017, a collision that resulted in injury caused to drivers and passengers occurred at this intersection between an eastbound vehicle and a northbound vehicle. Although the primary collision type is unknown, both vehicles left the roadway due to the collision.

3.5.6 Highway 1 and Edgelow Road S./Thicke Road Intersection

Based on ICBC data, the Highway 1 and Edgelow Road S./Thicke Road intersection had four PDO incidents and six collisions with injuries caused to drivers or passengers during the five-year period. No fatalities were reported. The histogram in **Figure 3-9** summarizes the collision data provided by ICBC between 2011 and 2015.

Based on MOTI data, police responded to nine collisions at this intersection between 2012 and 2016. Six of the incidents involved rear-end collisions in the northbound direction. One collision involved a vehicle making a 90° left-turn movement at the intersection and one incident was a single vehicle leaving the travel lane. Lastly, one collision involved hitting a wild animal. **Figure 3-10** summarizes the type of collisions at the intersection of Highway 1 and Ludlow Road/1st Avenue.

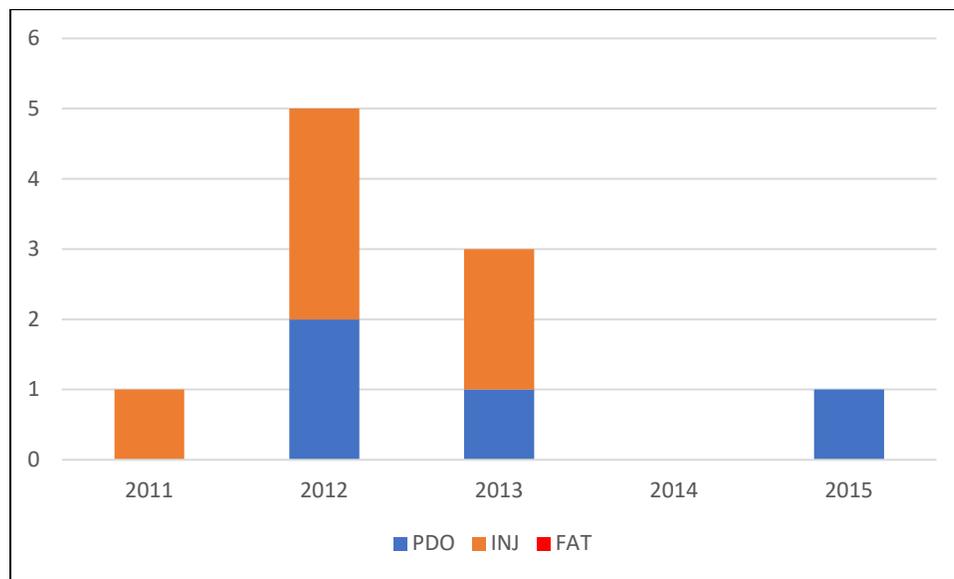


Figure 3-9: Collision Severity at Highway 1 and Edgelow Road S./Thicke Road

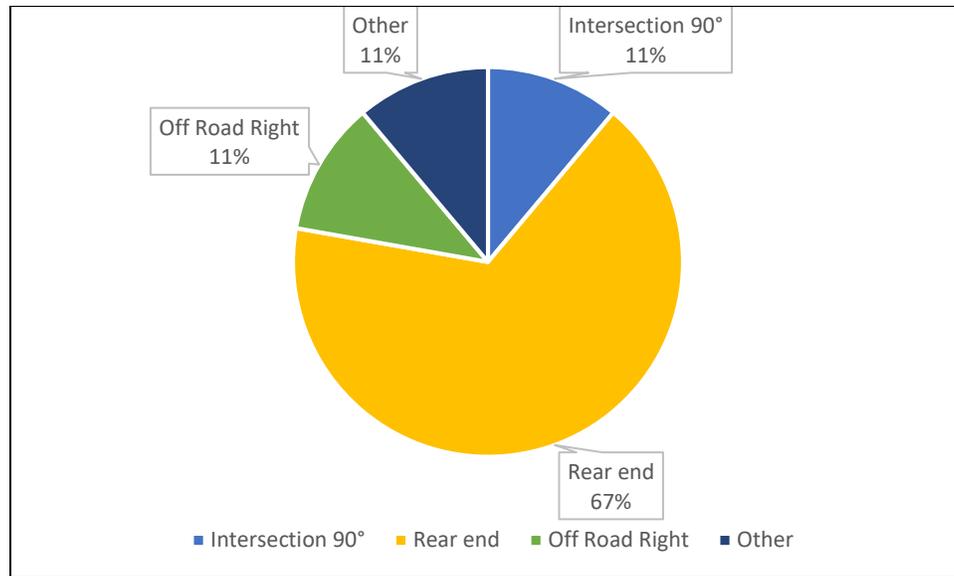


Figure 3-10: Collision Types at Highway 1 and Edgelow Road S./Thicke Road

3.6 Traffic Operation Analysis

3.6.1 Methodology

The traffic operation analysis in this report was performed using the Synchro 9 software suite, which is generally based on the Highway Capacity Manual (HCM) methodologies. The existing traffic operations were evaluated to estimate the volume to capacity (v/c) ratio, delay, level-of-service (LOS), and 95th percentile queue length at each of the study intersections.

When reviewing the traffic analysis results, a v/c ratio at or above 1.00 indicates that traffic volumes exceed the intersection capacity. Delay, in terms of seconds, represents the wait time experienced by a driver on the approach to the intersection. LOS is a grading system on intersection operation based on the calculated delay as per the criteria shown in **Table 3-3** for a signalized intersection and in **Table 3-4** for an unsignalized intersection. LOS A means that the intersection experiences little to no delay whereas a LOS F indicates significant delay is present.

Table 3-3: HCM LOS Criteria for Signalized Intersection

| Level of Service | Average Control Delay (s/veh) |
|------------------|-------------------------------|
| A | 0 – 10 |
| B | > 10 – 20 |
| C | > 20 – 35 |
| D | > 35 – 55 |
| E | > 55 – 80 |
| F | > 80 |

Table 3-4: HCM LOS Criteria for Unsignalized Intersection

| Level of Service | Average Control Delay (s/veh) |
|------------------|-------------------------------|
| A | 0 – 10 |
| B | > 10 – 15 |
| C | > 15 – 25 |
| D | > 25 – 35 |
| E | > 35 – 50 |
| F | > 50 |

The target intersection operation thresholds for this study were assumed to be as follows:

- LOS D or better for the overall intersection and individual turning movements;
- Delay less than 55 seconds (signalized) or 35 seconds (unsignalized) at an intersection; and
- v/c ratio of 0.85 or lower for the overall intersection and individual turning movements.

The detailed traffic analysis results output from Synchro are provided in **Appendix E**. The existing signal timing plans for the study road network were provided by the MOTI and were used in the following analysis.

3.6.2 Existing AM Peak Hour

Based on the Synchro analysis, all existing intersections within the study area were found to be operating overall at LOS B or better during the AM peak hour.

3.6.3 Existing PM Peak Hour

Based on the Synchro analysis, all existing intersections within the study area were found to be operating overall at LOS C or better during the PM peak hour; however, some intersections have individual turning movements that operate above the study thresholds.

At the Highway 1 and Grouhel Road intersection, the eastbound shared left-turn/right-turn movement was found to be operating at LOS F with a v/c ratio of 1.38.

At the Highway 1 and Ludlow Road/1st Avenue intersection, the eastbound left-turn movement was found to be operating at LOS F with a v/c ratio of 1.04.

At the Highway 1 and N. Davis Road intersection, the northbound and southbound left-turn movements were both found to be operating at LOS E with v/c ratios of 0.65 and 0.72, respectively. Additionally, the eastbound left-turn movement and westbound shared left-turn/through movement were both found to be operating at LOS E with v/c ratio of 0.78 and 0.53, respectively.

At the Highway 1 and S. Davis Road intersection, the eastbound shared left-turn/through/right-turn movement and the westbound shared left-turn/through movement were both found to be operating at LOS F with v/c ratios of 0.44 and 0.05, respectively.

The existing traffic operations for the AM peak and PM peak are summarized in **Table 3-5**.

Table 3-5: Existing Traffic Operations

| Intersection | Turning Movement | AM Peak Hour | | | | PM Peak Hour | | | |
|--|------------------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|
| | | LOS | Delay (s) | V/C Ratio | 95% Q (m) | LOS | Delay (s) | V/C Ratio | 95% Q (m) |
| Hwy 1 / Grouhel Rd (Unsignalized) | EBL/R | D | 33.5 | 0.28 | 8.5 | F | 432.5 | 1.38 | 42.4 |
| | NBL | B | 10.4 | 0.02 | 0.6 | B | 14.0 | 0.07 | 1.6 |
| | NBT | A | - | 0.29 | - | A | - | 0.48 | - |
| | SBT | A | - | 0.29 | - | A | - | 0.45 | - |
| | SBR | A | - | 0.01 | - | A | - | 0.03 | - |
| | Int. LOS | A | | | | A | | | |
| Hwy 1 & 1st Ave/Ludlow Rd (Signalized) | EBL | D | 36.9 | 0.69 | #71.6 | F | 101.9 | 1.04 | #102.0 |
| | EBT/R | B | 13.7 | 0.20 | 16.2 | B | 19.8 | 0.19 | 16.8 |
| | WBL | C | 23.3 | 0.11 | 11.3 | C | 33.5 | 0.29 | 23.6 |
| | WBT | C | 22.6 | 0.05 | 8.5 | C | 31.6 | 0.23 | 25.3 |
| | WBR | A | - | 0.02 | - | A | - | 0.02 | - |
| | NBL | B | 13.4 | 0.08 | 5.3 | B | 11.2 | 0.08 | 4.8 |
| | NBT | B | 15.3 | 0.50 | 49.4 | B | 16.4 | 0.70 | 106.6 |
| | NBR | A | 0.6 | 0.08 | 1.1 | A | 0.1 | 0.06 | 0.3 |
| | SBL | A | 6.5 | 0.12 | 5.6 | A | 6.1 | 0.16 | 4.8 |
| | SBT | A | 9.4 | 0.45 | 36.7 | A | 8.9 | 0.54 | 57.8 |
| SBR | A | 1.7 | 0.18 | 5.8 | A | 1.3 | 0.24 | 6.7 | |
| | Int. LOS | B | | | | B | | | |
| Hwy 1 & Roberts St (Signalized) | EBL/T | C | 32.7 | 0.35 | 23.5 | D | 44.5 | 0.52 | 29.8 |
| | EBR | A | 4.2 | 0.17 | 4.6 | B | 10.5 | 0.33 | 12.9 |
| | WBL/T | C | 27.6 | 0.05 | 4.5 | C | 33.5 | 0.18 | 11.3 |
| | WBR | A | - | 0.01 | - | A | - | 0.03 | - |
| | NBL | A | 5.2 | 0.21 | 9.0 | B | 13.8 | 0.49 | 24.1 |
| | NBT | A | 4.8 | 0.31 | 31.2 | A | 7.0 | 0.53 | 71.2 |
| | NBR | A | 0.7 | 0.02 | 1.1 | A | 1.6 | 0.04 | 2.8 |
| | SBL | B | 12.0 | 0.06 | 6.0 | B | 14.6 | 0.16 | 8.9 |
| | SBT/R | B | 13.5 | 0.46 | 67.4 | B | 19.1 | 0.74 | 125.0 |
| | Int. LOS | B | | | | B | | | |
| Hwy 1 & N Davis Rd (Signalized) | EBL | C | 27.7 | 0.40 | 33.5 | E | 61.5 | 0.78 | #67.2 |
| | EBT/R | B | 11.9 | 0.24 | 18.1 | C | 24.0 | 0.43 | 38.0 |
| | WBL/T | D | 40.2 | 0.30 | 21.3 | E | 61.8 | 0.53 | 35.9 |
| | WBR | A | 0.2 | 0.11 | - | A | 0.2 | 0.12 | - |
| | NBL | D | 40.0 | 0.26 | 19.3 | E | 62.0 | 0.65 | 53.3 |
| | NBT | C | 20.9 | 0.50 | 62.8 | D | 35.6 | 0.84 | #202.9 |
| | NBR | A | - | 0.01 | - | A | 0.1 | 0.04 | - |
| | SBL | D | 39.9 | 0.31 | 22.5 | E | 59.2 | 0.72 | 68.9 |
| | SBT | B | 19.5 | 0.53 | 73.7 | C | 25.1 | 0.64 | 127.7 |
| SBR | A | 4.3 | 0.16 | 9.6 | A | 3.5 | 0.31 | 14.5 | |
| | Int. LOS | B | | | | C | | | |
| Hwy 1 & Davis Rd (Unsignalized) | EBL/T/R | C | 18.5 | 0.19 | 5.2 | F | 51.7 | 0.43 | 14.2 |
| | WBL/T | D | 31.8 | 0.02 | 0.5 | F | 194.8 | 0.05 | 1.1 |
| | WBR | - | - | 0.00 | - | B | 14.0 | 0.00 | - |
| | NBL | A | 9.6 | 0.02 | 0.4 | B | 11.5 | 0.15 | 3.9 |
| | NBT | A | - | 0.20 | - | A | - | 0.39 | - |
| | NBR | A | - | 0.00 | - | A | - | 0.00 | - |
| | SBL | A | 9.0 | 0.01 | 0.1 | B | 12.2 | 0.02 | 0.5 |
| | SBT | A | - | 0.25 | - | A | - | 0.31 | - |
| SBR | A | - | 0.01 | - | A | - | 0.03 | - | |
| | Int. LOS | A | | | | A | | | |
| Hwy 1 & Thicke Rd/Edgelow Rd (Signalized) | EBL/T/R | A | 4.1 | 0.07 | 2.9 | C | 29.4 | 0.28 | 17.7 |
| | WBL/T/R | A | 0.1 | 0.02 | - | B | 20.0 | 0.02 | 3.3 |
| | NBL | A | 2.5 | 0.01 | 0.9 | A | 4.2 | 0.04 | 2.6 |
| | NBT/R | A | 1.7 | 0.21 | 19.1 | A | 4.9 | 0.47 | 59.3 |
| | SBL | A | 2.5 | 0.01 | 0.9 | A | 4.0 | 0.01 | 0.9 |
| | SBT | A | 1.9 | 0.27 | 26.3 | A | 4.1 | 0.37 | 40.5 |
| | SBR | A | 0.2 | 0.00 | 0.2 | A | 0.5 | 0.01 | 0.6 |
| | Int. LOS | A | | | | A | | | |

4 PROPOSED IMPROVEMENTS

4.1 Signal Timing Improvements

4.1.1 Highway 1 and Ludlow Road/1st Avenue Intersection

The Highway 1 and Ludlow Road/1st Avenue intersection is currently operating at a cycle length of 96.3 seconds. By increasing the cycle length to 100 seconds and optimizing the length of green time provided to each phase, the intersection's maximum v/c ratio is expected to decrease to be within study thresholds and the eastbound left-turn movement is expected to operate at LOS D.

As the intersection is currently over capacity, signal timing improvements can only increase the capacity by so much. As the area continues to develop and grow in population and employment opportunities in the future, geometric improvements to the intersection will be required to achieve additional capacity.

4.1.2 Highway 1 and Transfer Beach Boulevard/Roberts Street intersection

Redistributing the green time at this signal provides negligible changes to intersection performance in the AM peak hour. In the PM peak hour, redistributing the green time results in a minor delay decrease for the Highway 1 movement and a minor delay increases for the eastbound and westbound movements. Therefore, the existing signal timing may be maintained at this intersection.

4.1.3 Highway 1 and N. Davis Road

The Highway 1 and N. Davis Road intersection is currently operating at a cycle length of 140.5 seconds to facilitate more Highway 1 green time and to minimize the lost time. Although the eastbound left-turn movement was found to be operating at LOS E in the PM peak hour, providing more green time to this movement did not provide a noticeable improvement to the intersection as the delay is likely a result of the long Highway 1 green time. To increase the capacity of the intersection and improve the performance of the eastbound left-turn movement, it is likely that geometric improvements will be required.

4.1.4 Highway 1 and Edgelow Road S./Thicke Road

As the Highway 1 and Edgelow Road S./Thicke Road intersection is operating at an overall LOS A for both AM and PM peak, and no individual movements are operating below LOS C, no signal timing improvements are recommended for this intersection.

4.2 Intersection Operation Improvements

4.2.1 Highway 1 and Grouhel Road Intersection

At the Highway 1 and Grouhel Road intersection, the shared eastbound left-turn/right-turn movement currently operates at LOS F during the PM peak as vehicles have difficulty finding suitable gaps on Highway 1 to make the left-out movement. As this intersection does not warrant a traffic signal, as discussed in **Section 3.1**, an alternative improvement option was considered.

Restricting the left-out movement at the Highway 1 and Grouhel Road intersection is expected to improve the eastbound movement to LOS C in the PM peak hour. This restriction would require traffic to detour to the Highway 1 and Ludlow Road/1st Avenue intersection via Christie Road, 3rd Avenue, and Symonds Street to make the eastbound left-turn movement. Alternatively, a protected-T intersection may be considered as well subject to detailed analysis regarding the platooning effects on its performance due to the traffic signal nearby.

4.2.2 Highway 1 and Ludlow Road/1st Avenue Intersection

As the Highway 1 and Ludlow Road/1st Avenue intersection eastbound left-turn movement is currently operating at LOS F, the addition of more vehicles making this movement is expected to further increase the delay; however, by implementing the signal timing improvements discussed in **Section 4.1**, additional capacity can be accommodated by this movement and the expected PM peak delay may improve to LOS D.

Alternatively, based on information provided by the Town, a roundabout has been proposed at the existing Rocky Creek Road and Ludlow Road T-intersection. Should this proposed reconfiguration be constructed, the Grouhel Road eastbound vehicles would be able to access Highway 1 northbound by making the right-out movement onto Highway 1 southbound, making the left-turn movement onto Ludlow Road, and using the roundabout as a turnaround facility. Given the existing low southbound left-turn volume at the Highway 1 and Ludlow Road/1st Avenue intersection, which operates as a protected-permissive movement, it is expected that the intersection will be able to accommodate the additional vehicles without any significant impacts.

4.2.3 Highway 1 and S. Davis Road Intersection

The Highway 1 and S. Davis Road intersection was found to experience significant delays in the eastbound shared left-turn/through/right-turn movement and the westbound shared left-turn/through movement in the PM peak hour. As this intersection does not warrant a traffic signal, as discussed in **Section 3.1**, it is proposed that the Highway 1 and S. Davis Road intersection be restricted to the right-in/right-out (RIRO) and left-in movements only. It is recommended that the Highway 1 left-in movements are maintained as they are currently operating within the study thresholds.

Under the proposed laning configuration, vehicles making the existing S. Davis Road eastbound left-out movement will be required to detour to the signalized N. Davis Road intersection to access Highway 1 northbound. Existing eastbound through vehicles will also be required to use this signalized intersection to access the west side of S. Davis Road via the Highway 1 southbound left-in movement. Similarly, the current westbound left-out movement will be required to use the N. Davis Road intersection and Davis Road as a turnaround facility to access Highway 1 southbound via the S. Davis Road eastbound right-out movement. Lastly, the existing westbound through movement will be able to access the east side of S. Davis Road via the signalized N. Davis Road intersection as well.

Given the low existing traffic volumes making the left-turn and through movements from S. Davis Road, it is expected that the N. Davis Road intersection will be able to accommodate the additional vehicles without any significant impact. It is noted that although the northbound left-turn movement at the

Highway 1 and N. Davis Road intersection is operating at LOS E, the movement has a v/c ratio of 0.65. This indicates the delay is due to the long signal cycle length and that the movement has reserve capacity to accommodate additional vehicles.

This option is preferred over a speed limit reduction along Highway 1 as it is assumed a lower speed will receive low compliance by drivers.

4.3 Pedestrian Accommodations

4.3.1 Highway 1 and Buller Street

At the unsignalized Highway 1 and Buller Street intersection, there are no marked pedestrian accommodations provided across Highway 1. Based on the collected data, 43 pedestrians were found to cross Highway 1 at Buller Street in a 12-hour period. The peak hour was found to be from 6:00 PM to 7:00 PM with 12 pedestrians crossing Highway 1 during this time.

To improve pedestrian safety at the Highway 1 and Buller Street intersection, it is recommended that pedestrians be discouraged from crossing the highway at this location as there are no marked facilities. In the short-term, the following strategy is recommended:

- Install median fencing to direct pedestrians towards the nearest marked intersection.

In the long-term, the following additional strategy is recommended to improve pedestrian safety:

- Coordinate with the Town to construct a grade-separated pedestrian crossing near this location.

4.3.2 Highway 1 Pedestrian Underpass

The Highway 1 pedestrian underpass near Methuen Street provides access between the residential area west of the highway and Transfer Beach Park, Ladysmith Amphitheater, and the waterfront area. Additionally, the pedestrian underpass is part of the Trans Canada Trail. Based on the collected data, 171 pedestrians were found to use the underpass in a 12-hour period. A noticeable increase in use of the pedestrian underpass occurred in the evening. The peak hour was found to be from 5:15 PM to 6:15 PM with 30 pedestrians using the underpass during this time.

The Highway 1 pedestrian underpass near Methuen Street is well utilized by pedestrians and cyclists as part of the Trans Canada Trail. To enhance user's experience along the trail, the MOTI may work with the Town to provide future public space improvements at the underpass.

In the long-term, the following additional strategy is recommended to enhance user experience:

- Coordinate with the Town to construct additional multi-use pathways on the east side of the highway that connect to existing trails for recreational use.

4.4 Safety Improvements

The following safety improvements are proposed for the six study intersections:

- Additional speed limit signage for southbound vehicles on Highway 1 upstream of Grouhel Road to alert drivers of the speed transition from 90 km/h to 70 km/h and to encourage drivers to slow down in more urban areas. The slower speeds will also benefit vehicles making the left-in and left-out movements at Grouhel Road.
- At the intersection of Highway 1 and Ludlow Road/1st Avenue, the Town has noted that some driver confusion has been observed for the southbound left-turn movement. Due to the wide chevron gore between the westbound through lane and left-turn lane, drivers confuse the location of the receiving lane. Providing intersection guiding lines for the southbound left-turn movement may improve the guidance for drivers making this turn.
- For the Highway 1 and Transfer Beach Boulevard/Roberts Street intersection, it is recommended that the signal timing sheet's Intersection Flash be updated to Red for all approaches. This will improve the safety of the egress traffic from the side roads in the event of a power outage or a signal controller fault.
- At the intersection of Highway 1 and N. Davis Road, rear-end collisions accounted for 70% of all collisions that occurred at this location based on the MOTI data, especially in the northbound direction. Until capacity improvements are provided at this intersection, active congestion ahead warning sign could be considered for the northbound traffic to supplement the advance warning flashers that are currently in place.
- Additional speed limit signage for Highway 1 northbound vehicles on the north side of the N. Davis Road intersection to alert drivers of the speed transition from 90 km/h to 70 km/h and to encourage drivers to slow down in more urban areas.
- Install No Right Turn signage on the west approach of the Highway 1 and Edgelow Road S./Thicke Road intersection. There is a yield-controlled eastbound right-turn lane onto Highway 1 southbound approximately 120 m south of the intersection to facilitate the turnaround movement for Highway 1 northbound vehicles. The available sightline for eastbound right-turn vehicles is better at the turnaround location than the upstream intersection due to the existing vertical grade of Highway 1 in the southbound direction.

5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Binnie has been retained by the MOTI to perform a traffic operation review on Highway 1 through the Town. The purpose of this review is to evaluate the performance of six intersections and to provide recommendations for safety and performance improvements. The study intersections are:

- Highway 1 and Grouhel Road
- Highway 1 and Ludlow Road/1st Avenue
- Highway 1 and Transfer Beach Boulevard/Roberts Street
- Highway 1 and N. Davis Road
- Highway 1 and S. Davis Road
- Highway 1 and Edgelow Road S./Thicke Road

The performance of the above intersections was analyzed based on the existing traffic volumes, operating speed, vehicle classification, and collision data. A summary of the study findings are as follows:

- All intersections within the study area were found to be operating overall at LOS B or better during the AM peak hour and at LOS C or better during the PM peak hour
- Traffic signals are not warranted at the Highway 1 and Grouhel Road intersection or the Highway 1 and S. Davis Road intersection. The southbound left-turn movement on Highway 1 and Transfer Beach Boulevard/ Roberts Street also does not warrant a protected or protected-permissive left-turn traffic signal
- Traffic along Highway 1 generally travels above the posted speed limit through the study area by approximately 10 km/h to 25 km/h
- Two-way traffic along Highway 1 within the study corridor is approximately 83% passenger vehicles and 17% heavy trucks
- Based on ICBC data, 29 PDO incidents and 20 collisions with injury occurred at the intersection of Highway 1 and N. Davis Road between 2011 and 2015
- Significant number of pedestrians cross Highway 1 near Buller Street with seven pedestrians accounted for during the peak

5.2 Recommendations

The following recommendations are based on the analysis findings outlined in this report.

Short-Term

- Restrict the eastbound left-turn movement at the Highway 1 and Grouhel Road intersection to improve the traffic operations and safety at the unsignalized intersection

- Additional posted speed limit signage upstream of Grouhel Road for Highway 1 southbound traffic
- Implement an updated signal timing sheet at the Highway 1 and Ludlow Road/1st Avenue intersection that optimizes the green time provided for each phase
- Apply intersection guiding lines for the southbound left-turn movement at the intersection of Highway 1 and Ludlow Road/1st Avenue
- Consider installing an active congestion ahead warning sign for the northbound traffic approaching the Highway 1 and N. Davis Road intersection.
- Additional posted speed limit signage downstream of N. Davis Road for Highway 1 northbound traffic
- Restrict the unsignalized intersection of Highway 1 and S. Davis to RIRO and left-in movements only
- On Highway 1 near Buller Street, direct pedestrians to intersections with marked crosswalks by installing median fences

Mid-Term/Long-Term

- Geometric design changes at the intersection of Highway 1 and Ludlow Road/1st Avenue and the intersection of Highway 1 and N. Davis Road for noticeable traffic operations improvements
- Consider grade-separated pedestrian crossing facility near Highway 1 at Buller Street that is compatible with the planned waterfront developments in the Town.

APPENDIX A

EXISTING TURNING MOVEMENT COUNT DATA

Major Route: Highway 1
Minor Route: Grouhel Road
Municipality: Ladysmith
Filename: 1-Highway 1 @ Grouhel Rd-Aug 9, 2018.xlsx
Location #: 1

Date: August 9, 2018
Day-of-week: Thursday

East/West Route: Grouhel Road
Intersection Type: 3-leg west approach
Signalized?: No
Weather: Clear and dry

Vehicle Classifications: Regular Vehicles **This data is for All Vehicles Combined**
 Light Trucks
 Heavy Trucks
 Bicycles

| Shift | Start | End | Duration |
|--------------|-------------|--------------|-------------|
| AM | 7:00 | 9:00 | 2.00 |
| MD | | | |
| PM | 15:00 | 18:00 | 3.00 |
| Total | 7:00 | 18:00 | 5.00 |

Notes: 24-hour clock used for reporting (15-minute increments)
 North Approach - southbound vehicles approaching intersection from the north
 15x4 - 15 min volume (from maximum 15 minute period of movement/approach in peak hour period [*]) x 4
 Pedestrians - N indicates pedestrians crossing north approach (east/west)

Comments:

AM Peak Period
All Vehicles Combined

Highway 1 @ Grouhel Road
Thursday, August 9, 2018

| Time Period | Highway 1 NORTH Approach | | | | Highway 1 SOUTH Approach | | | | Grouhel Rd WEST Approach | | | | Grouhel Rd EAST Approach | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | | | | |
|-------------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------|------|------|------------|---|---|---|----------|----|---|-----|------|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | 15-min | Hour | | N | S | W | E | 15 min | Hr | | | |
| 7:00 | | 146 | 5 | 151 | 1 | 216 | | 217 | 11 | | | 11 | 2 | 13 | | 15 | | | | | | | 0 | 0 | 0 | 0 | 227 | |
| 7:15 | | 190 | 2 | 192 | 3 | 245 | | 248 | 16 | | | 16 | 5 | 21 | | 26 | | | | | | | 0 | 0 | 0 | 0 | 261 | |
| 7:30 | | 227 | 4 | 231 | 2 | 270 | | 272 | 8 | | | 8 | 6 | 14 | | 20 | | | | | | | 0 | 0 | 0 | 0 | 278 | |
| 7:45 | | 203 | 5 | 208 | 9 | 230 | | 239 | 3 | | | 3 | 3 | 6 | | 9 | | | | | | | 0 | 0 | 0 | 0 | 233 | 999 |
| 8:00 | | 217 | 5 | 222 | 2 | 227 | | 229 | 7 | | | 7 | 7 | 14 | | 21 | | | | | | | 0 | 0 | 0 | 0 | 234 | 1006 |
| 8:15 | | 208 | 4 | 212 | 9 | 233 | | 242 | 6 | | | 6 | 4 | 10 | | 16 | | | | | | | 0 | 0 | 0 | 0 | 239 | 984 |
| 8:30 | | 245 | 3 | 248 | 4 | 244 | | 248 | 6 | | | 6 | 7 | 13 | | 19 | | | | | | | 0 | 0 | 0 | 0 | 259 | 965 |
| 8:45 | | 252 | 7 | 259 | 1 | 198 | | 199 | 4 | | | 4 | 5 | 9 | | 13 | | | | | | | 0 | 0 | 0 | 0 | 265 | 997 |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period
All Vehicles Combined

Highway 1 @ Grouhel Road
Thursday, August 9, 2018

| Time Period | Highway 1 NORTH Approach | | | | Highway 1 SOUTH Approach | | | | Grouhel Rd WEST Approach | | | | Grouhel Rd EAST Approach | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | |
|-------------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------|-------|------|------------|---|---|---|----------|------|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | 15-min | Hour | | N | S | W | E | 15 min | Hr |
| 15:00 | | 322 | 4 | 326 | 7 | 319 | | 326 | 6 | | 9 | 15 | | | | | 667 | | | 0 | 0 | 0 | 0 | 342 | |
| 15:15 | | 304 | 7 | 311 | 10 | 327 | | 337 | 5 | | 3 | 8 | | | | | 656 | | | 0 | 0 | 0 | 0 | 332 | |
| 15:30 | | 373 | 10 | 383 | 11 | 349 | | 360 | 4 | | 3 | 7 | | | | | 750 | | | 0 | 0 | 0 | 0 | 398 | |
| 15:45 | | 345 | 8 | 353 | 9 | 284 | | 293 | 2 | | 6 | 8 | | | | | 654 | 2727 | | 0 | 0 | 0 | 0 | 368 | 1440 |
| 16:00 | | 314 | 6 | 320 | 6 | 322 | | 328 | 2 | | 9 | 11 | | | | | 659 | 2719 | | 0 | 0 | 0 | 0 | 335 | 1433 |
| 16:15 | | 338 | 10 | 348 | 8 | 357 | | 365 | 8 | | 4 | 12 | | | | | 725 | 2788* | | 0 | 0 | 0 | 0 | 365 | 1466 |
| 16:30 | | 363 | 13 | 376 | 7 | 384 | | 391 | 9 | | 7 | 16 | | | | | 783 | 2821* | | 0 | 0 | 0 | 0 | 393 | 1461 |
| 16:45 | | 345 | 8 | 353 | 5 | 359 | | 364 | 6 | | 4 | 10 | | | | | 727 | 2894* | | 0 | 0 | 0 | 0 | 365 | 1458 |
| 17:00 | | 370 | 17 | 387 | 6 | 389 | | 395 | 8 | | 4 | 12 | | | | | 794 | 3029+ | | 0 | 0 | 0 | 0 | 401 | 1524 |
| 17:15 | | 368 | 10 | 378 | 11 | 322 | | 333 | 3 | | 4 | 7 | | | | | 718 | 3022 | | 0 | 0 | 0 | 0 | 393 | 1552 |
| 17:30 | | 342 | 13 | 355 | 3 | 265 | | 268 | 2 | | 6 | 8 | | | | | 631 | 2870 | | 0 | 0 | 0 | 0 | 364 | 1523 |
| 17:45 | | 323 | 16 | 339 | 12 | 271 | | 283 | 2 | | 6 | 8 | | | | | 630 | 2773 | | 0 | 0 | 0 | 0 | 357 | 1515 |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |

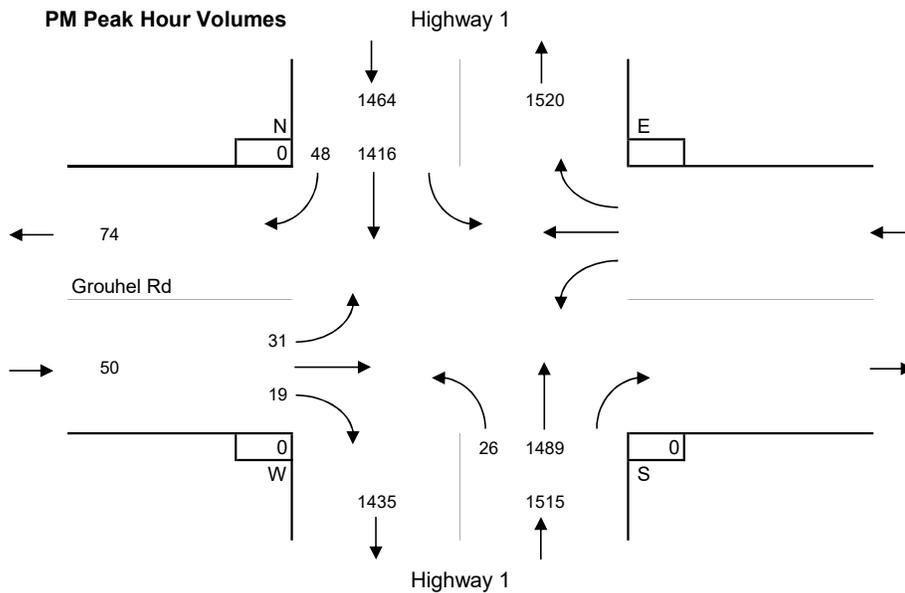
| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|------|-----|-------------|----|------|--|-------------|----|--|----|------------|--|--|--|--|------|--|--|---|---|---|--|--|------|
| Total | | 4107 | 122 | 4229 | 95 | 3948 | | 4043 | 57 | | 65 | 122 | | | | | 8394 | | | 0 | 0 | 0 | | | 4389 |
| Avg Hr | | 1369 | 41 | 1410 | 32 | 1316 | | 1348 | 19 | | 22 | 41 | | | | | 2798 | | | 0 | 0 | 0 | | | |

Peak hour of the intersection

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|--|------|------|-------------|------|------|--|-------------|------|--|------|-------------|--|--|--|--|-------|--|--|-----|-----|-----|--|--|------|
| Pk Hr | | 1416 | 48 | 1464 | 26 | 1489 | | 1515 | 31 | | 19 | 50 | | | | | 3029* | | | 0 | 0 | 0 | | | 1521 |
| 15x4 | | 1480 | 68 | 1548 | 32 | 1556 | | 1580 | 36 | | 28 | 64 | | | | | 3176+ | | | 0 | 0 | 0 | | | 1616 |
| PHF | | 0.96 | 0.71 | 0.95 | 0.81 | 0.96 | | 0.96 | 0.86 | | 0.68 | 0.78 | | | | | 0.95 | | | n/a | n/a | n/a | | | 0.94 |

Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|--|------|------|-------------|------|------|--|-------------|------|--|------|-------------|--|--|--|--|-------|--|--|-----|-----|-----|--|--|------|
| Pk Hr | | 1446 | 48 | 1494 | 29 | 1454 | | 1483 | 26 | | 19 | 45 | | | | | 3022* | | | 0 | 0 | 0 | | | 1549 |
| 15x4 | | 1480 | 68 | 1548 | 44 | 1556 | | 1580 | 36 | | 28 | 64 | | | | | 3176+ | | | 0 | 0 | 0 | | | 1628 |
| PHF | | 0.98 | 0.71 | 0.97 | 0.66 | 0.93 | | 0.94 | 0.72 | | 0.68 | 0.70 | | | | | 0.95 | | | n/a | n/a | n/a | | | 0.95 |



Entire Survey Period

5 Hours

| | Highway 1 | | | | Highway 1 | | | | Grouhel Rd | | | | EAST Approach | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Total | | 5795 | 157 | 5952 | 126 | 5811 | | 5937 | 118 | | 104 | 222 | | | | | 12111 | 0 | 0 | 0 | |
| Avg Hr | | 1159 | 31 | 1190 | 25 | 1162 | | 1187 | 24 | | 21 | 44 | | | | 2422 | 0 | 0 | 0 | | |

AM Peak Period

2 Hours

| | Highway 1 | | | | Highway 1 | | | | Grouhel Rd | | | | EAST Approach | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | 1688 | 35 | 1723 | 31 | 1863 | | 1894 | 61 | | 39 | 100 | | | | 3717 | 0 | 0 | 0 | | |
| Avg Hr | | 844 | 18 | 862 | 16 | 932 | | 947 | 31 | | 20 | 50 | | | | 1859 | 0 | 0 | 0 | | |

MD Peak Period

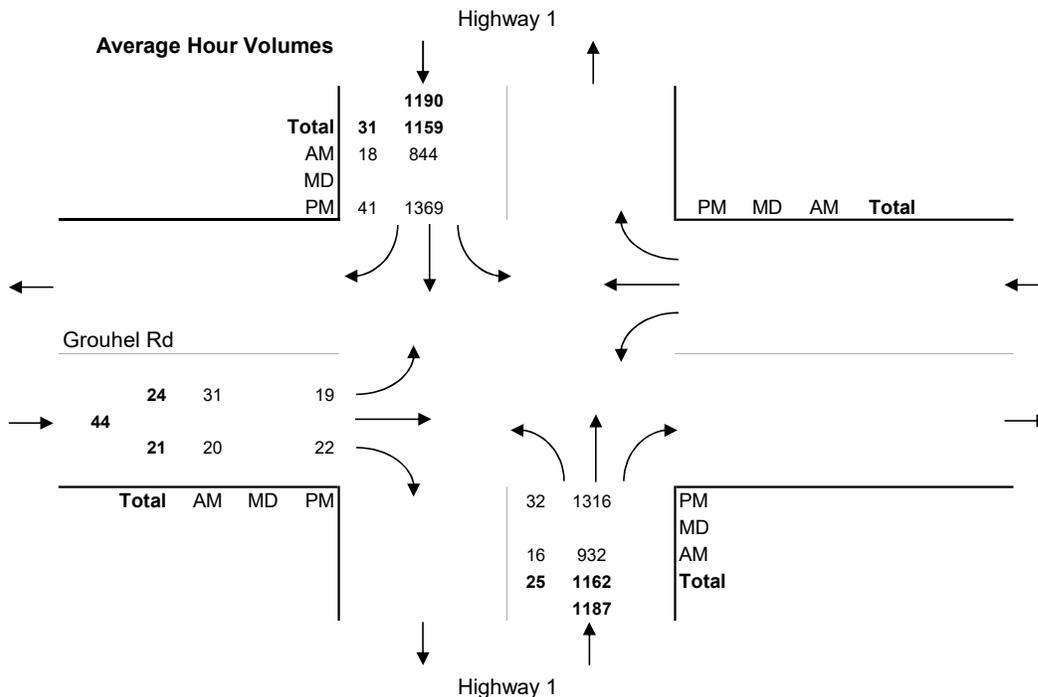
Hours

| | Highway 1 | | | | Highway 1 | | | | Grouhel Rd | | | | EAST Approach | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |
| Avg Hr | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period

3 Hours

| | Highway 1 | | | | Highway 1 | | | | Grouhel Rd | | | | EAST Approach | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | 4107 | 122 | 4229 | 95 | 3948 | | 4043 | 57 | | 65 | 122 | | | | 8394 | 0 | 0 | 0 | | |
| Avg Hr | | 1369 | 41 | 1410 | 32 | 1316 | | 1348 | 19 | | 22 | 41 | | | | 2798 | 0 | 0 | 0 | | |



Major Route: Highway 1
Minor Route: Ludlow Road
Municipality: Ladysmith
Filename: 2-Highway 1 @ Ludlow Rd-Aug 9, 2018.xlsx
Location #: 2

Date: August 9, 2018
Day-of-week: Thursday

East/West Route: Ludlow Road
Intersection Type: 4-leg
Signalized?: Yes
Weather: Clear and dry

Vehicle Classifications: Regular Vehicles
 Light Trucks
 Heavy Trucks
 Bicycles

This data is for All Vehicles Combined

| Shift | Start | End | Duration |
|--------------|-------------|--------------|-------------|
| AM | 7:00 | 9:00 | 2.00 |
| MD | | | |
| PM | 15:00 | 18:00 | 3.00 |
| Total | 7:00 | 18:00 | 5.00 |

Notes: 24-hour clock used for reporting (15-minute increments)
 North Approach - southbound vehicles approaching intersection from the north
 15x4 - 15 min volume (from maximum 15 minute period of movement/approach in peak hour period [*]) x 4
 Pedestrians - N indicates pedestrians crossing north approach (east/west)

Comments:

AM Peak Period
All Vehicles Combined

Highway 1 @ Ludlow Road
Thursday, August 9, 2018

| Time Period | Highway 1 | | | | Highway 1 | | | | 1st Ave | | | | Ludlow Rd | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | | | | |
|-------------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|--------------|-------|------|------------|---|---|---|----------|----|---|-----|------|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | 15-min | Hour | | N | S | W | E | 15 min | Hr | | | |
| Begins | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | | | | | | | | |
| 7:00 | 7 | 147 | 9 | 163 | 3 | 175 | 2 | 180 | 45 | 6 | 7 | 58 | 6 | 3 | 6 | 15 | 416 | | | | | | 0 | 2 | 0 | 0 | 238 | |
| 7:15 | 6 | 162 | 14 | 182 | 4 | 195 | 3 | 202 | 58 | 7 | 19 | 84 | 3 | 0 | 4 | 7 | 475 | | | | | | 0 | 1 | 0 | 0 | 266 | |
| 7:30 | 6 | 202 | 26 | 234 | 2 | 198 | 4 | 204 | 56 | 12 | 14 | 82 | 6 | 3 | 10 | 19 | 539 | | | | | | 0 | 2 | 0 | 0 | 299 | |
| 7:45 | 8 | 170 | 26 | 204 | 3 | 166 | 7 | 176 | 66 | 8 | 6 | 80 | 9 | 7 | 8 | 24 | 484 | 1914 | | | | | 0 | 0 | 0 | 0 | 280 | 1083 |
| 8:00 | 11 | 193 | 34 | 238 | 0 | 167 | 10 | 177 | 62 | 5 | 13 | 80 | 6 | 4 | 5 | 15 | 510 | 2008* | | | | | 0 | 0 | 0 | 0 | 298 | 1143 |
| 8:15 | 11 | 170 | 25 | 206 | 6 | 172 | 9 | 187 | 63 | 9 | 10 | 82 | 5 | 2 | 7 | 14 | 489 | 2022* | | | | | 0 | 0 | 0 | 0 | 273 | 1150 |
| 8:30 | 11 | 202 | 42 | 255 | 6 | 180 | 14 | 200 | 61 | 11 | 16 | 88 | 8 | 7 | 5 | 20 | 563 | 2046+ | | | | | 0 | 0 | 0 | 0 | 323 | 1174 |
| 8:45 | 11 | 200 | 45 | 256 | 6 | 151 | 18 | 175 | 39 | 14 | 9 | 62 | 13 | 9 | 12 | 34 | 527 | 2089* | | | | | 0 | 2 | 0 | 0 | 311 | 1205 |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|--------|----|------|-----|------|----|------|----|------|-----|----|----|-----|----|----|----|-----|------|
| Total | 71 | 1446 | 221 | 1738 | 30 | 1404 | 67 | 1501 | 450 | 72 | 94 | 616 | 56 | 35 | 57 | 148 | 4003 |
| Avg Hr | 36 | 723 | 111 | 869 | 15 | 702 | 34 | 751 | 225 | 36 | 47 | 308 | 28 | 18 | 29 | 74 | 2002 |

| | | | |
|---|---|---|---|
| 0 | 7 | 0 | 0 |
| 0 | 4 | 0 | 0 |

2239

Peak hour of the intersection

| | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| Pk Hr | 44 | 765 | 146 | 955 | 18 | 670 | 51 | 739 | 225 | 39 | 48 | 312 | 32 | 22 | 29 | 83 | 2089* |
| 15x4 | 44 | 808 | 180 | 1024 | 24 | 720 | 72 | 800 | 252 | 56 | 64 | 352 | 52 | 36 | 48 | 136 | 2252+ |
| PHF | 1.00 | 0.95 | 0.81 | 0.93 | 0.75 | 0.93 | 0.71 | 0.92 | 0.89 | 0.70 | 0.75 | 0.89 | 0.62 | 0.61 | 0.60 | 0.61 | 0.93 |

| | | | |
|-----|------|-----|-----|
| 0 | 2 | 0 | 0 |
| 0 | 8 | 0 | 0 |
| n/a | 0.25 | n/a | n/a |

1205
1348
0.89

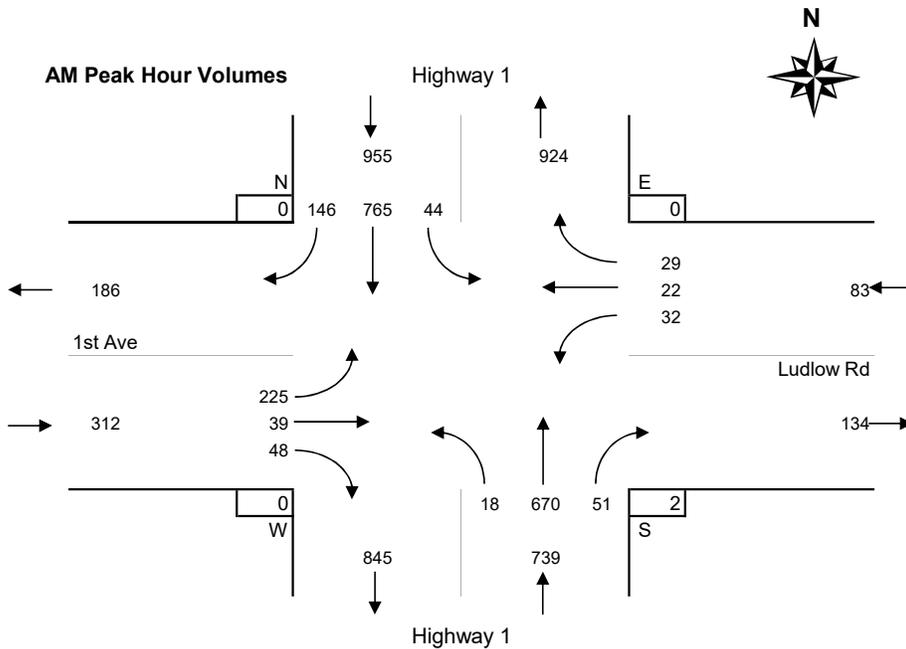
Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| Pk Hr | 44 | 765 | 146 | 955 | 18 | 670 | 51 | 739 | 225 | 39 | 48 | 312 | 32 | 22 | 29 | 83 | 2089* |
| 15x4 | 44 | 808 | 180 | 1024 | 24 | 720 | 72 | 800 | 252 | 56 | 64 | 352 | 52 | 36 | 48 | 136 | 2252+ |
| PHF | 1.00 | 0.95 | 0.81 | 0.93 | 0.75 | 0.93 | 0.71 | 0.92 | 0.89 | 0.70 | 0.75 | 0.89 | 0.62 | 0.61 | 0.60 | 0.61 | 0.93 |

| | | | |
|-----|------|-----|-----|
| 0 | 2 | 0 | 0 |
| 0 | 8 | 0 | 0 |
| n/a | 0.25 | n/a | n/a |

1205
1348
0.89

** Calculated peak hour occurs during the first or last hour of shift and therefore may be invalid. **



PM Peak Period
All Vehicles Combined

Highway 1 @ Ludlow Road
Thursday, August 9, 2018

| Time Period | Highway 1 NORTH Approach | | | | Highway 1 SOUTH Approach | | | | 1st Ave WEST Approach | | | | Ludlow Rd EAST Approach | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | |
|-------------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-----------------------|------|-------|-------|-------------------------|------|-------|-------|--------------|-------|------|------------|---|---|-----|----------|----|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | 15-min | Hour | | N | S | W | E | 15 min | Hr |
| 15:00 | 10 | 257 | 46 | 313 | 4 | 247 | 14 | 265 | 57 | 19 | 13 | 89 | 19 | 21 | 15 | 55 | 722 | | 0 | 2 | 0 | 0 | 400 | | |
| 15:15 | 11 | 235 | 56 | 302 | 3 | 284 | 15 | 302 | 56 | 11 | 12 | 79 | 20 | 22 | 13 | 55 | 738 | | 0 | 0 | 0 | 0 | 401 | | |
| 15:30 | 5 | 324 | 53 | 382 | 2 | 287 | 22 | 311 | 38 | 16 | 10 | 64 | 25 | 15 | 24 | 64 | 821 | | 0 | 2 | 0 | 0 | 456 | | |
| 15:45 | 11 | 256 | 61 | 328 | 5 | 225 | 16 | 246 | 58 | 15 | 18 | 91 | 21 | 12 | 13 | 46 | 711 | 2992 | 0 | 3 | 0 | 0 | 405 | 1662 | |
| 16:00 | 9 | 264 | 53 | 326 | 6 | 266 | 14 | 286 | 64 | 10 | 10 | 84 | 17 | 18 | 12 | 47 | 743 | 3013 | 0 | 2 | 0 | 0 | 417 | 1679 | |
| 16:15 | 8 | 258 | 58 | 324 | 7 | 288 | 14 | 309 | 62 | 8 | 9 | 79 | 10 | 17 | 8 | 35 | 747 | 3022* | 0 | 1 | 0 | 1 | 410 | 1688 | |
| 16:30 | 6 | 278 | 56 | 340 | 4 | 314 | 9 | 327 | 59 | 9 | 7 | 75 | 25 | 24 | 8 | 57 | 799 | 3000* | 0 | 0 | 0 | 0 | 429 | 1661 | |
| 16:45 | 16 | 277 | 75 | 368 | 2 | 332 | 10 | 344 | 60 | 12 | 7 | 79 | 14 | 21 | 4 | 39 | 830 | 3119+ | 0 | 0 | 0 | 0 | 443 | 1699 | |
| 17:00 | 8 | 288 | 53 | 349 | 4 | 292 | 15 | 311 | 74 | 7 | 9 | 90 | 21 | 17 | 3 | 41 | 791 | 3167* | 0 | 0 | 0 | 0 | 439 | 1721 | |
| 17:15 | 7 | 275 | 57 | 339 | 5 | 274 | 10 | 289 | 65 | 8 | 6 | 79 | 17 | 9 | 7 | 33 | 740 | 3160 | 0 | 0 | 0 | 0 | 418 | 1729 | |
| 17:30 | 6 | 279 | 64 | 349 | 6 | 217 | 12 | 235 | 51 | 6 | 5 | 62 | 12 | 9 | 12 | 33 | 679 | 3040 | 0 | 0 | 0 | 0 | 421 | 1721 | |
| 17:45 | 6 | 264 | 44 | 314 | 7 | 211 | 8 | 226 | 44 | 6 | 7 | 57 | 14 | 4 | 7 | 25 | 622 | 2832 | 0 | 0 | 0 | 0 | 370 | 1648 | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |

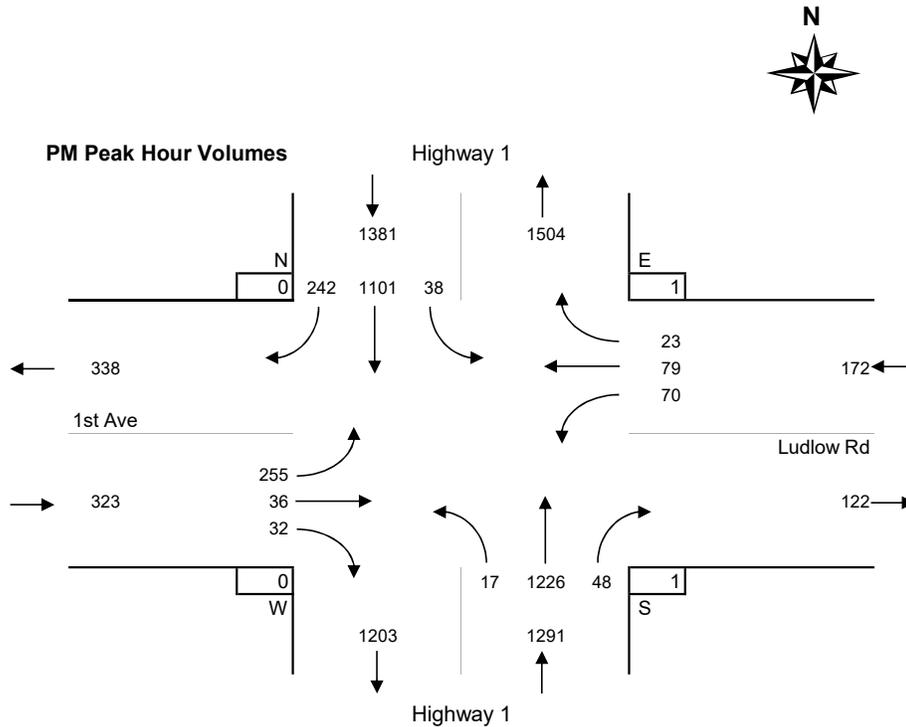
| | | | | | | | | | | | | | | | | | | | | | | | |
|--------|-----|------|-----|-------------|----|------|-----|-------------|-----|-----|-----|------------|-----|-----|-----|------------|------|--|---|----|---|---|------|
| Total | 103 | 3255 | 676 | 4034 | 55 | 3237 | 159 | 3451 | 688 | 127 | 113 | 928 | 215 | 189 | 126 | 530 | 8943 | | 0 | 10 | 0 | 1 | 4989 |
| Avg Hr | 34 | 1085 | 225 | 1345 | 18 | 1079 | 53 | 1150 | 229 | 42 | 38 | 309 | 72 | 63 | 42 | 177 | 2981 | | 0 | 3 | 0 | 0 | |

Peak hour of the intersection

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|-------|--|-----|------|-----|------|------|
| Pk Hr | 38 | 1101 | 242 | 1381 | 17 | 1226 | 48 | 1291 | 255 | 36 | 32 | 323 | 70 | 79 | 23 | 172 | 3160* | | 0 | 1 | 0 | 1 | 1717 |
| 15x4 | 64 | 1152 | 300 | 1472 | 28 | 1328 | 60 | 1376 | 296 | 48 | 36 | 360 | 100 | 96 | 32 | 228 | 3320+ | | 0 | 4 | 0 | 4 | 1904 |
| PHF | 0.59 | 0.96 | 0.81 | 0.94 | 0.61 | 0.92 | 0.80 | 0.94 | 0.86 | 0.75 | 0.89 | 0.90 | 0.70 | 0.82 | 0.72 | 0.75 | 0.95 | | n/a | 0.25 | n/a | 0.25 | 0.90 |

Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|-------|--|-----|-----|-----|-----|------|
| Pk Hr | 37 | 1118 | 241 | 1396 | 15 | 1212 | 44 | 1271 | 258 | 36 | 29 | 323 | 77 | 71 | 22 | 170 | 3160* | | 0 | 0 | 0 | 0 | 1725 |
| 15x4 | 64 | 1152 | 300 | 1472 | 20 | 1328 | 60 | 1376 | 296 | 48 | 36 | 360 | 100 | 96 | 32 | 228 | 3320+ | | 0 | 0 | 0 | 0 | 1896 |
| PHF | 0.58 | 0.97 | 0.80 | 0.95 | 0.75 | 0.91 | 0.73 | 0.92 | 0.87 | 0.75 | 0.81 | 0.90 | 0.77 | 0.74 | 0.69 | 0.75 | 0.95 | | n/a | n/a | n/a | n/a | 0.91 |



Entire Survey Period

5 Hours

| | Highway 1 | | | | Highway 1 | | | | 1st Ave | | | | Ludlow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|----|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Total | 174 | 4701 | 897 | 5772 | 85 | 4641 | 226 | 4952 | 1138 | 199 | 207 | 1544 | 271 | 224 | 183 | 678 | 12946 | 0 | 17 | 0 | 1 |
| Avg Hr | 35 | 940 | 179 | 1154 | 17 | 928 | 45 | 990 | 228 | 40 | 41 | 309 | 54 | 45 | 37 | 136 | 2589 | 0 | 3 | 0 | 0 |

AM Peak Period

2 Hours

| | Highway 1 | | | | Highway 1 | | | | 1st Ave | | | | Ludlow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 71 | 1446 | 221 | 1738 | 30 | 1404 | 67 | 1501 | 450 | 72 | 94 | 616 | 56 | 35 | 57 | 148 | 4003 | 0 | 7 | 0 | 0 |
| Avg Hr | 36 | 723 | 111 | 869 | 15 | 702 | 34 | 751 | 225 | 36 | 47 | 308 | 28 | 18 | 29 | 74 | 2002 | 0 | 4 | 0 | 0 |

MD Peak Period

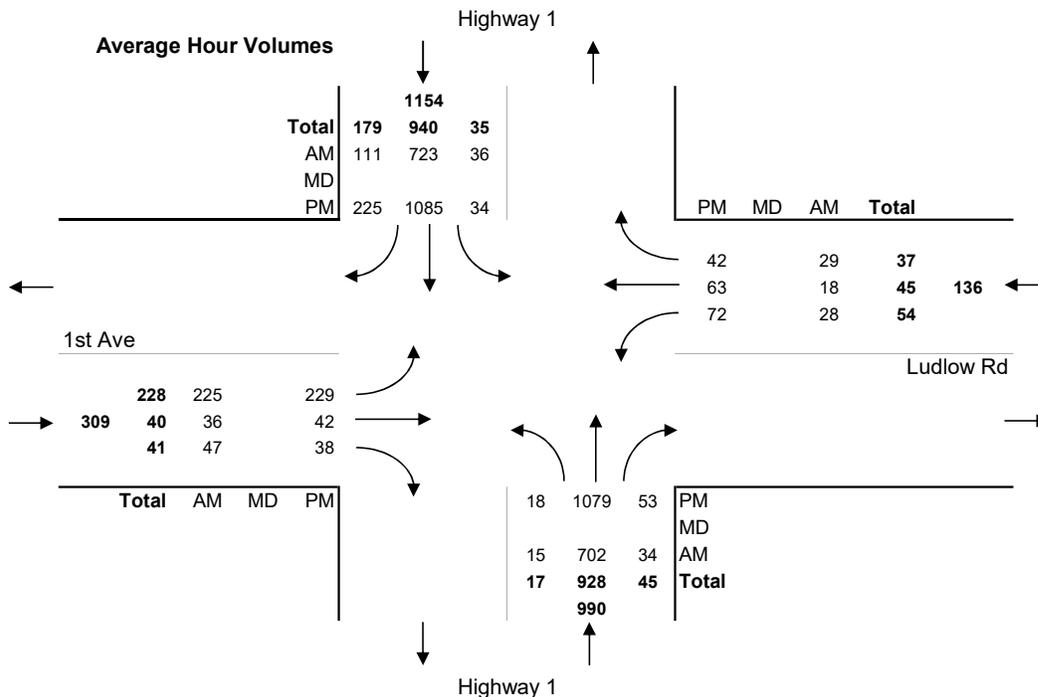
Hours

| | Highway 1 | | | | Highway 1 | | | | 1st Ave | | | | Ludlow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |
| Avg Hr | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period

3 Hours

| | Highway 1 | | | | Highway 1 | | | | 1st Ave | | | | Ludlow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|----|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 103 | 3255 | 676 | 4034 | 55 | 3237 | 159 | 3451 | 688 | 127 | 113 | 928 | 215 | 189 | 126 | 530 | 8943 | 0 | 10 | 0 | 1 |
| Avg Hr | 34 | 1085 | 225 | 1345 | 18 | 1079 | 53 | 1150 | 229 | 42 | 38 | 309 | 72 | 63 | 42 | 177 | 2981 | 0 | 3 | 0 | 0 |



Major Route: Highway 1
Minor Route: Roberts Street
Municipality: Ladysmith
Filename: 3-Highway 1 @ Roberts St-Aug 9, 2018.xlsx
Location #: 3

Date: August 9, 2018
Day-of-week: Thursday

East/West Route: Roberts Street
Intersection Type: 4-leg
Signalized?: Yes
Weather: Clear and dry

Vehicle Classifications: Regular Vehicles
 Light Trucks
 Heavy Trucks
 Bicycles

This data is for All Vehicles Combined

| Shift | Start | End | Duration |
|--------------|-------------|--------------|-------------|
| AM | 7:00 | 9:00 | 2.00 |
| MD | | | |
| PM | 15:00 | 18:00 | 3.00 |
| Total | 7:00 | 18:00 | 5.00 |

Notes: 24-hour clock used for reporting (15-minute increments)
 North Approach - southbound vehicles approaching intersection from the north
 15x4 - 15 min volume (from maximum 15 minute period of movement/approach in peak hour period [*]) x 4
 Pedestrians - N indicates pedestrians crossing north approach (east/west)

Comments:

PM Peak Period
All Vehicles Combined

Highway 1 @ Roberts Street
Thursday, August 9, 2018

| Time Period | Highway 1 NORTH Approach | | | | Highway 1 SOUTH Approach | | | | Roberts St WEST Approach | | | | Transfer Beach Blvd EAST Approach | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | |
|-------------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-----------------------------------|------|-------|-------|--------------|-------|------|------------|---|---|---|----------|------|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | 15-min | Hour | | N | S | W | E | 15 min | Hr |
| 15:00 | 5 | 287 | 10 | 302 | 22 | 263 | 8 | 293 | 12 | 5 | 25 | 42 | 13 | 11 | 13 | 37 | 674 | | | 2 | 0 | 0 | 0 | 362 | |
| 15:15 | 8 | 274 | 14 | 296 | 33 | 292 | 5 | 330 | 16 | 8 | 19 | 43 | 4 | 11 | 11 | 26 | 695 | | | 0 | 0 | 0 | 0 | 359 | |
| 15:30 | 6 | 350 | 7 | 363 | 37 | 280 | 8 | 325 | 13 | 5 | 20 | 38 | 4 | 6 | 13 | 23 | 749 | | | 0 | 0 | 0 | 0 | 426 | |
| 15:45 | 7 | 318 | 5 | 330 | 39 | 263 | 7 | 309 | 12 | 6 | 20 | 38 | 5 | 8 | 7 | 20 | 697 | 2815 | | 0 | 0 | 0 | 0 | 393 | 1540 |
| 16:00 | 8 | 299 | 11 | 318 | 36 | 283 | 12 | 331 | 21 | 4 | 17 | 42 | 4 | 9 | 9 | 22 | 713 | 2854 | | 1 | 0 | 0 | 0 | 385 | 1563 |
| 16:15 | 11 | 284 | 14 | 309 | 44 | 296 | 9 | 349 | 29 | 5 | 25 | 59 | 12 | 7 | 7 | 26 | 743 | 2902* | | 7 | 7 | 2 | 5 | 385 | 1589 |
| 16:30 | 5 | 304 | 6 | 315 | 24 | 312 | 11 | 347 | 15 | 4 | 28 | 47 | 9 | 8 | 7 | 24 | 733 | 2886* | | 0 | 0 | 7 | 0 | 375 | 1538 |
| 16:45 | 5 | 299 | 13 | 317 | 39 | 341 | 11 | 391 | 13 | 3 | 25 | 41 | 10 | 6 | 9 | 25 | 774 | 2963+ | | 3 | 0 | 0 | 0 | 395 | 1540 |
| 17:00 | 8 | 308 | 8 | 324 | 35 | 287 | 8 | 330 | 16 | 3 | 15 | 34 | 8 | 5 | 16 | 29 | 717 | 2967* | | 3 | 1 | 3 | 0 | 388 | 1543 |
| 17:15 | 10 | 310 | 10 | 330 | 31 | 287 | 2 | 320 | 14 | 6 | 23 | 43 | 8 | 2 | 6 | 16 | 709 | 2933 | | 5 | 0 | 0 | 0 | 388 | 1546 |
| 17:30 | 11 | 291 | 11 | 313 | 27 | 245 | 12 | 284 | 12 | 6 | 18 | 36 | 11 | 3 | 9 | 23 | 656 | 2856 | | 0 | 0 | 0 | 0 | 364 | 1535 |
| 17:45 | 6 | 300 | 11 | 317 | 31 | 216 | 7 | 254 | 8 | 9 | 19 | 36 | 8 | 3 | 6 | 17 | 624 | 2706 | | 2 | 0 | 0 | 0 | 378 | 1518 |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |

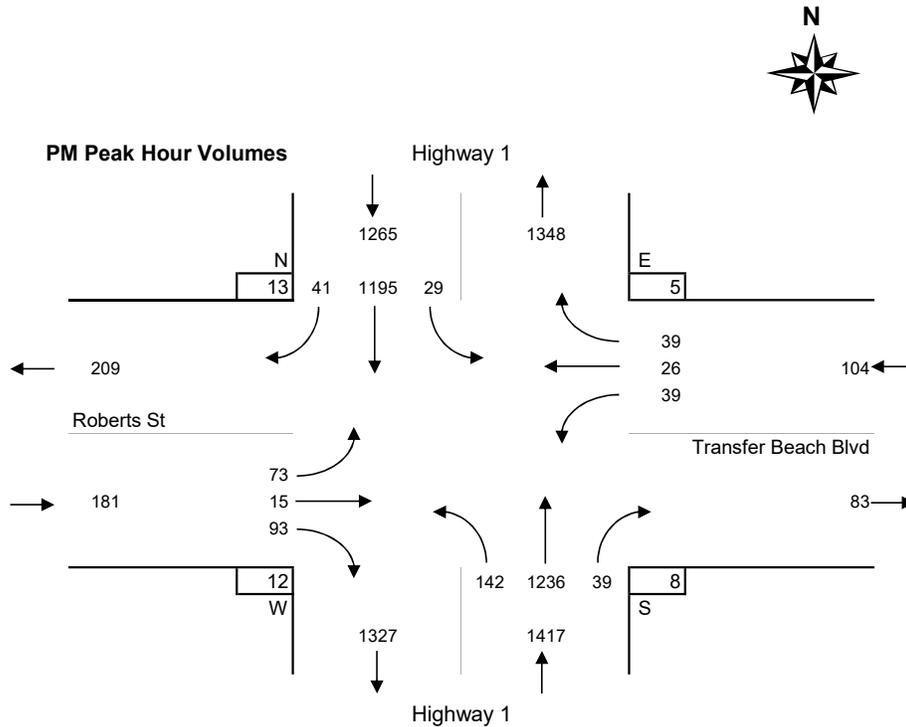
| | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------|-----|-------------|-----|------|-----|-------------|-----|----|-----|------------|----|----|-----|------------|------|--|----|---|----|---|------|
| Total | 90 | 3624 | 120 | 3834 | 398 | 3365 | 100 | 3863 | 181 | 64 | 254 | 499 | 96 | 79 | 113 | 288 | 8484 | | 23 | 8 | 12 | 5 | 4556 |
| Avg Hr | 30 | 1208 | 40 | 1278 | 133 | 1122 | 33 | 1288 | 60 | 21 | 85 | 166 | 32 | 26 | 38 | 96 | 2828 | | 8 | 3 | 4 | 2 | |

Peak hour of the intersection

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|-------|--|------|------|------|------|------|
| Pk Hr | 29 | 1195 | 41 | 1265 | 142 | 1236 | 39 | 1417 | 73 | 15 | 93 | 181 | 39 | 26 | 39 | 104 | 2967* | | 13 | 8 | 12 | 5 | 1525 |
| 15x4 | 44 | 1232 | 56 | 1296 | 176 | 1364 | 44 | 1564 | 116 | 20 | 112 | 236 | 48 | 32 | 64 | 116 | 3096+ | | 28 | 28 | 28 | 20 | 1676 |
| PHF | 0.66 | 0.97 | 0.73 | 0.98 | 0.81 | 0.91 | 0.89 | 0.91 | 0.63 | 0.75 | 0.83 | 0.77 | 0.81 | 0.81 | 0.61 | 0.90 | 0.96 | | 0.46 | 0.29 | 0.43 | 0.25 | 0.91 |

Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|-------|--|------|------|------|------|------|
| Pk Hr | 32 | 1251 | 37 | 1320 | 156 | 1122 | 36 | 1314 | 75 | 20 | 82 | 177 | 25 | 30 | 36 | 91 | 2902* | | 8 | 7 | 2 | 5 | 1585 |
| 15x4 | 44 | 1400 | 56 | 1452 | 176 | 1184 | 48 | 1396 | 116 | 24 | 100 | 236 | 48 | 36 | 52 | 104 | 2996+ | | 28 | 28 | 8 | 20 | 1836 |
| PHF | 0.73 | 0.89 | 0.66 | 0.91 | 0.89 | 0.95 | 0.75 | 0.94 | 0.65 | 0.83 | 0.82 | 0.75 | 0.52 | 0.83 | 0.69 | 0.88 | 0.97 | | 0.29 | 0.25 | 0.25 | 0.25 | 0.86 |



Entire Survey Period

5 Hours

| | Highway 1 | | | | Highway 1 | | | | Roberts St | | | | Transfer Beach Blvd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------------|----------------|------|-------|-------------|---------------|------|-------|------------|---------------------|------|-------|------------|-----------------|------------|------|-------|-------|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | Left | Thru | Right | Total |
| Total | 129 | 5181 | 154 | 5464 | 536 | 4849 | 127 | 5512 | 277 | 94 | 356 | 727 | 108 | 100 | 138 | 346 | 12049 | 31 | 10 | 13 | 6 |
| Avg Hr | 26 | 1036 | 31 | 1093 | 107 | 970 | 25 | 1102 | 55 | 19 | 71 | 145 | 22 | 20 | 28 | 69 | 2410 | 6 | 2 | 3 | 1 |

AM Peak Period

2 Hours

| | Highway 1 | | | | Highway 1 | | | | Roberts St | | | | Transfer Beach Blvd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------------|----------------|------|-------|-------------|---------------|------|-------|------------|---------------------|------|-------|-----------|-----------------|------------|------|-------|-------|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | Left | Thru | Right | Total |
| Totals | 39 | 1557 | 34 | 1630 | 138 | 1484 | 27 | 1649 | 96 | 30 | 102 | 228 | 12 | 21 | 25 | 58 | 3565 | 8 | 2 | 1 | 1 |
| Avg Hr | 20 | 779 | 17 | 815 | 69 | 742 | 14 | 825 | 48 | 15 | 51 | 114 | 6 | 11 | 13 | 29 | 1783 | 4 | 1 | 1 | 1 |

MD Peak Period

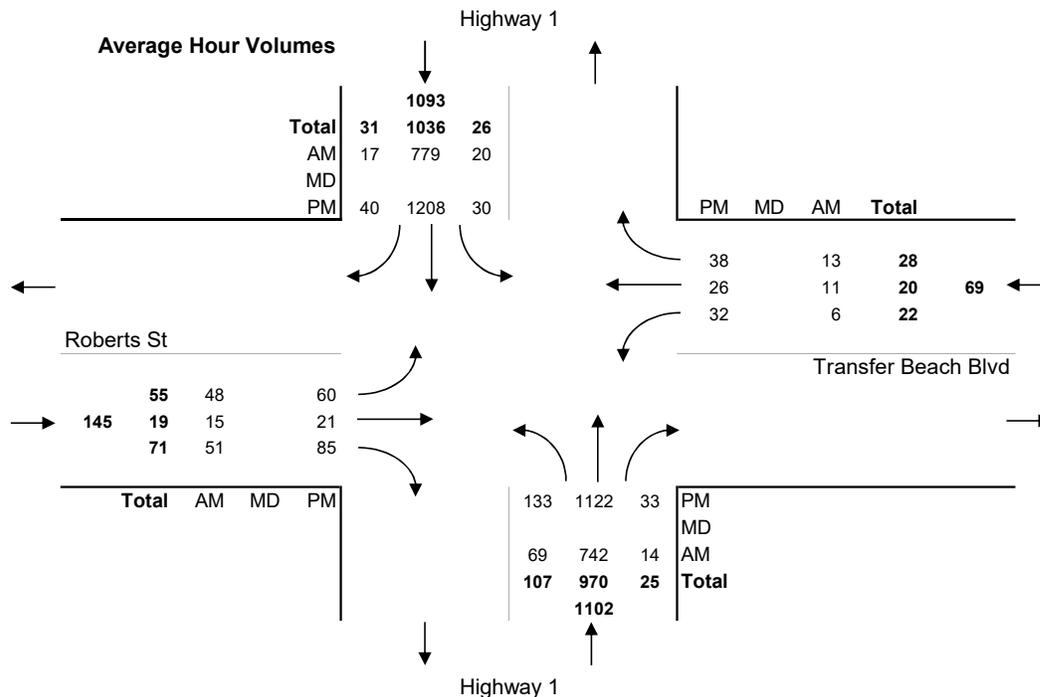
Hours

| | Highway 1 | | | | Highway 1 | | | | Roberts St | | | | Transfer Beach Blvd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------------|------|-------|-------|-----------------|------------|------|-------|-------|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | Left | Thru | Right | Total |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |
| Avg Hr | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period

3 Hours

| | Highway 1 | | | | Highway 1 | | | | Roberts St | | | | Transfer Beach Blvd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------------|----------------|------|-------|-------------|---------------|------|-------|------------|---------------------|------|-------|------------|-----------------|------------|------|-------|-------|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | Left | Thru | Right | Total |
| Totals | 90 | 3624 | 120 | 3834 | 398 | 3365 | 100 | 3863 | 181 | 64 | 254 | 499 | 96 | 79 | 113 | 288 | 8484 | 23 | 8 | 12 | 5 |
| Avg Hr | 30 | 1208 | 40 | 1278 | 133 | 1122 | 33 | 1288 | 60 | 21 | 85 | 166 | 32 | 26 | 38 | 96 | 2828 | 8 | 3 | 4 | 2 |



Major Route: Highway 1
Minor Route: N Davis Road
Municipality: Ladysmith
Filename: 4-Highway 1 @ N Davis Rd-Aug 9, 2018.xlsx
Location #: 4

Date: August 9, 2018
Day-of-week: Thursday

East/West Route: N Davis Road
Intersection Type: 4-leg
Signalized?: Yes
Weather: Clear and dry

Vehicle Classifications: Regular Vehicles
 Light Trucks
 Heavy Trucks
 Bicycles

This data is for All Vehicles Combined

| Shift | Start | End | Duration |
|--------------|-------------|--------------|-------------|
| AM | 7:00 | 9:00 | 2.00 |
| MD | | | |
| PM | 15:00 | 18:00 | 3.00 |
| Total | 7:00 | 18:00 | 5.00 |

Notes: 24-hour clock used for reporting (15-minute increments)
 North Approach - southbound vehicles approaching intersection from the north
 15x4 - 15 min volume (from maximum 15 minute period of movement/approach in peak hour period [*]) x 4
 Pedestrians - N indicates pedestrians crossing north approach (east/west)

Comments:

PM Peak Period
All Vehicles Combined

Highway 1 @ N Davis Road
Thursday, August 9, 2018

| Time Period | Highway 1 | | | | Highway 1 | | | | N Davis Rd | | | | N Davis Rd | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | | | | |
|-------------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|--------------|------|------|------------|---|---|---|----------|----|---|-----|------|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | 15-min | Hour | | N | S | W | E | 15 min | Hr | | | |
| Begins | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | | | | | | | | |
| 15:00 | 49 | 216 | 49 | 314 | 32 | 210 | 4 | 246 | 32 | 22 | 32 | 86 | 3 | 17 | 41 | 61 | 707 | | | | | | 1 | 0 | 0 | 1 | 387 | |
| 15:15 | 36 | 232 | 58 | 326 | 39 | 245 | 2 | 286 | 39 | 19 | 34 | 92 | 3 | 23 | 36 | 62 | 766 | | | | | | 0 | 0 | 0 | 0 | 427 | |
| 15:30 | 44 | 268 | 52 | 364 | 28 | 258 | 8 | 294 | 48 | 11 | 30 | 89 | 4 | 14 | 43 | 61 | 808 | | | | | | 0 | 0 | 0 | 0 | 453 | |
| 15:45 | 49 | 228 | 64 | 341 | 20 | 214 | 6 | 240 | 42 | 32 | 32 | 106 | 2 | 18 | 37 | 57 | 744 | 3025 | | | | | 0 | 0 | 0 | 0 | 409 | 1676 |
| 16:00 | 46 | 238 | 45 | 329 | 23 | 229 | 2 | 254 | 45 | 20 | 31 | 96 | 3 | 20 | 44 | 67 | 746 | 3064 | | | | | 0 | 0 | 0 | 0 | 415 | 1704 |
| 16:15 | 47 | 223 | 49 | 319 | 33 | 297 | 4 | 334 | 45 | 17 | 23 | 85 | 3 | 15 | 35 | 53 | 791 | 3089 | * | | | | 2 | 0 | 0 | 0 | 443 | 1720 |
| 16:30 | 45 | 261 | 56 | 362 | 33 | 263 | 2 | 298 | 42 | 12 | 22 | 76 | 4 | 17 | 37 | 58 | 794 | 3075 | * | | | | 1 | 0 | 0 | 1 | 446 | 1713 |
| 16:45 | 46 | 219 | 64 | 329 | 32 | 307 | 10 | 349 | 39 | 10 | 29 | 78 | 0 | 23 | 44 | 67 | 823 | 3154 | + | | | | 0 | 0 | 0 | 0 | 469 | 1773 |
| 17:00 | 45 | 225 | 66 | 336 | 30 | 255 | 7 | 292 | 47 | 12 | 30 | 89 | 4 | 11 | 40 | 55 | 772 | 3180 | * | | | | 3 | 0 | 0 | 0 | 419 | 1777 |
| 17:15 | 62 | 243 | 63 | 368 | 25 | 235 | 10 | 270 | 42 | 13 | 35 | 90 | 0 | 9 | 36 | 45 | 773 | 3162 | | | | | 0 | 0 | 0 | 0 | 418 | 1752 |
| 17:30 | 45 | 209 | 57 | 311 | 24 | 212 | 1 | 237 | 45 | 17 | 31 | 93 | 2 | 17 | 33 | 52 | 693 | 3061 | | | | | 0 | 0 | 0 | 0 | 385 | 1691 |
| 17:45 | 41 | 210 | 64 | 315 | 32 | 195 | 1 | 228 | 36 | 16 | 37 | 89 | 1 | 8 | 21 | 30 | 662 | 2900 | | | | | 0 | 0 | 0 | 0 | 371 | 1593 |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|--------|-----|------|-----|-------------|-----|------|----|-------------|-----|-----|-----|-------------|----|-----|-----|------------|------|
| Total | 555 | 2772 | 687 | 4014 | 351 | 2920 | 57 | 3328 | 502 | 201 | 366 | 1069 | 29 | 192 | 447 | 668 | 9079 |
| Avg Hr | 185 | 924 | 229 | 1338 | 117 | 973 | 19 | 1109 | 167 | 67 | 122 | 356 | 10 | 64 | 149 | 223 | 3026 |

| | | | | | |
|--|---|---|---|---|------|
| | 7 | 0 | 0 | 2 | 4951 |
| | 2 | 0 | 0 | 1 | |

Peak hour of the intersection

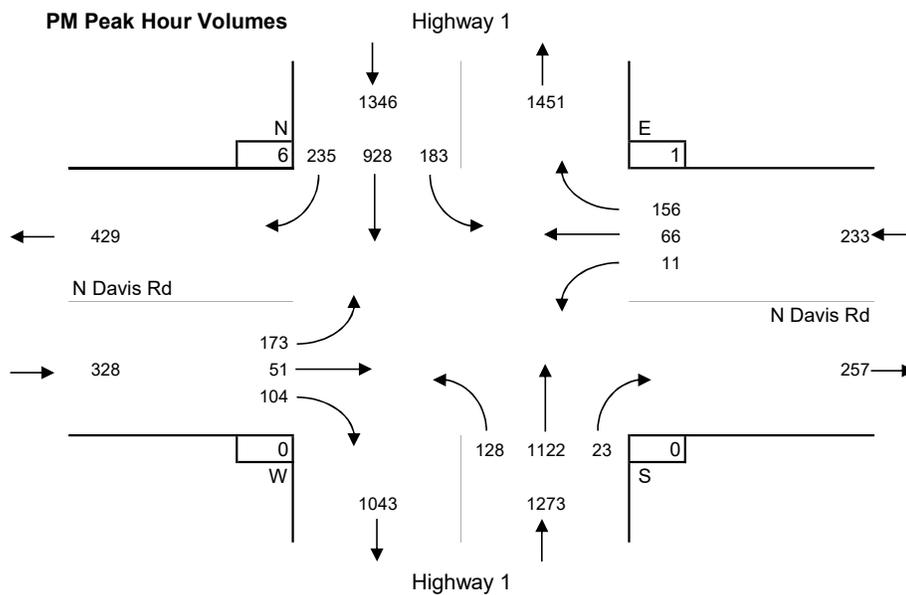
| | | | | | | | | | | | | | | | | | |
|-------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|
| Pk Hr | 183 | 928 | 235 | 1346 | 128 | 1122 | 23 | 1273 | 173 | 51 | 104 | 328 | 11 | 66 | 156 | 233 | 3180 |
| 15x4 | 188 | 1044 | 264 | 1448 | 132 | 1228 | 40 | 1396 | 188 | 68 | 120 | 356 | 16 | 92 | 176 | 268 | 3292 |
| PHF | 0.97 | 0.89 | 0.89 | 0.93 | 0.97 | 0.91 | 0.58 | 0.91 | 0.92 | 0.75 | 0.87 | 0.92 | 0.69 | 0.72 | 0.89 | 0.87 | 0.97 |

| | | | | | |
|--|------|-----|-----|------|------|
| | 6 | 0 | 0 | 1 | 1723 |
| | 12 | 0 | 0 | 4 | 1912 |
| | 0.50 | n/a | n/a | 0.25 | 0.90 |

Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | |
|-------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|------|------|-------------|------|
| Pk Hr | 183 | 928 | 235 | 1346 | 128 | 1122 | 23 | 1273 | 173 | 51 | 104 | 328 | 11 | 66 | 156 | 233 | 3180 |
| 15x4 | 188 | 1044 | 264 | 1448 | 132 | 1228 | 40 | 1396 | 188 | 68 | 120 | 356 | 16 | 92 | 176 | 268 | 3292 |
| PHF | 0.97 | 0.89 | 0.89 | 0.93 | 0.97 | 0.91 | 0.58 | 0.91 | 0.92 | 0.75 | 0.87 | 0.92 | 0.69 | 0.72 | 0.89 | 0.87 | 0.97 |

| | | | | | |
|--|------|-----|-----|------|------|
| | 6 | 0 | 0 | 1 | 1723 |
| | 12 | 0 | 0 | 4 | 1912 |
| | 0.50 | n/a | n/a | 0.25 | 0.90 |



Entire Survey Period

5 Hours

| | Highway 1 | | | | Highway 1 | | | | N Davis Rd | | | | N Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Total | 669 | 4150 | 865 | 5684 | 432 | 4104 | 67 | 4603 | 701 | 242 | 528 | 1471 | 52 | 251 | 726 | 1029 | 12787 | 12 | 0 | 0 | 2 |
| Avg Hr | 134 | 830 | 173 | 1137 | 86 | 821 | 13 | 921 | 140 | 48 | 106 | 294 | 10 | 50 | 145 | 206 | 2557 | 2 | 0 | 0 | 0 |

AM Peak Period

2 Hours

| | Highway 1 | | | | Highway 1 | | | | N Davis Rd | | | | N Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 114 | 1378 | 178 | 1670 | 81 | 1184 | 10 | 1275 | 199 | 41 | 162 | 402 | 23 | 59 | 279 | 361 | 3708 | 5 | 0 | 0 | 0 |
| Period | 114 | 1378 | 178 | 1670 | 81 | 1184 | 10 | 1275 | 199 | 41 | 162 | 402 | 23 | 59 | 279 | 361 | 3708 | 5 | 0 | 0 | 0 |
| Avg Hr | 57 | 689 | 89 | 835 | 41 | 592 | 5 | 638 | 100 | 21 | 81 | 201 | 12 | 30 | 140 | 181 | 1854 | 3 | 0 | 0 | 0 |

MD Peak Period

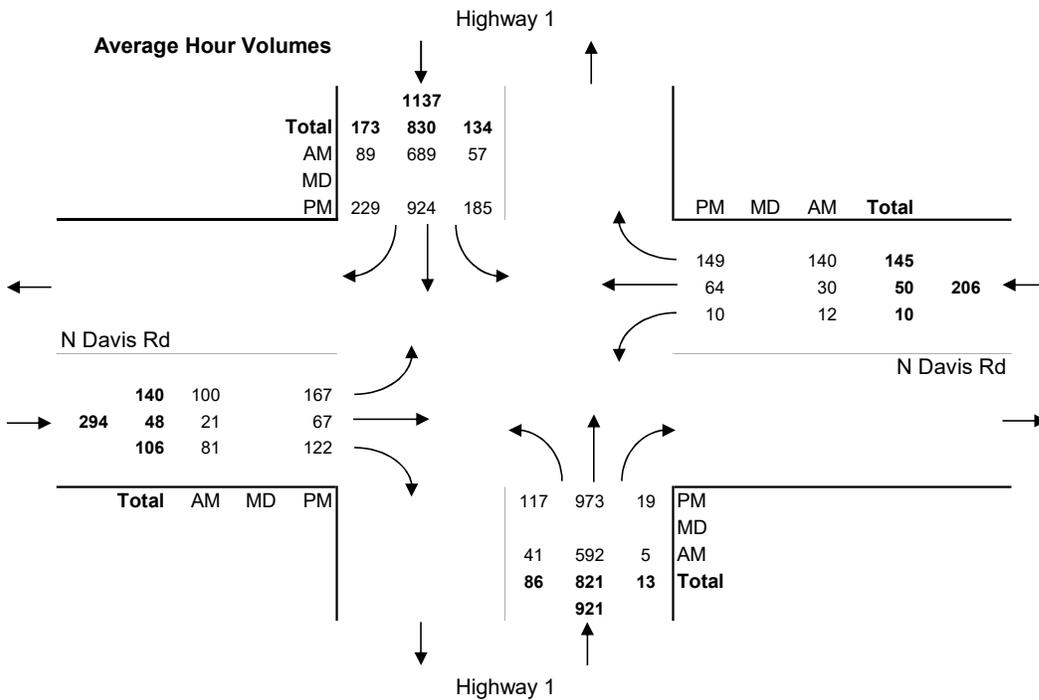
Hours

| | Highway 1 | | | | Highway 1 | | | | N Davis Rd | | | | N Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |
| Avg Hr | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period

3 Hours

| | Highway 1 | | | | Highway 1 | | | | N Davis Rd | | | | N Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 555 | 2772 | 687 | 4014 | 351 | 2920 | 57 | 3328 | 502 | 201 | 366 | 1069 | 29 | 192 | 447 | 668 | 9079 | 7 | 0 | 0 | 2 |
| Period | 555 | 2772 | 687 | 4014 | 351 | 2920 | 57 | 3328 | 502 | 201 | 366 | 1069 | 29 | 192 | 447 | 668 | 9079 | 7 | 0 | 0 | 2 |
| Avg Hr | 185 | 924 | 229 | 1338 | 117 | 973 | 19 | 1109 | 167 | 67 | 122 | 356 | 10 | 64 | 149 | 223 | 3026 | 2 | 0 | 0 | 1 |



Major Route: Highway 1
Minor Route: Davis Road
Municipality: Ladysmith
Filename: 5-Highway 1 @ Davis Rd-Aug 9, 2018.xlsx
Location #: 5

Date: August 9, 2018
Day-of-week: Thursday

East/West Route: Davis Road
Intersection Type: 4-leg
Signalized?: No
Weather: Clear and dry

Vehicle Classifications: Regular Vehicles
 Light Trucks
 Heavy Trucks
 Bicycles

This data is for All Vehicles Combined

| Shift | Start | End | Duration |
|--------------|-------------|--------------|-------------|
| AM | 7:00 | 9:00 | 2.00 |
| MD | | | |
| PM | 15:00 | 18:00 | 3.00 |
| Total | 7:00 | 18:00 | 5.00 |

Notes: 24-hour clock used for reporting (15-minute increments)
 North Approach - southbound vehicles approaching intersection from the north
 15x4 - 15 min volume (from maximum 15 minute period of movement/approach in peak hour period [*]) x 4
 Pedestrians - N indicates pedestrians crossing north approach (east/west)

Comments:

PM Peak Period
All Vehicles Combined

Highway 1 @ Davis Road
Thursday, August 9, 2018

| Time Period | Highway 1 | | | | Highway 1 | | | | Davis Rd | | | | Davis Rd | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | |
|-------------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|--------------|-------|------|------------|---|---|-----|----------|----|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | 15-min | Hour | | N | S | W | E | 15 min | Hr |
| Begins | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | | | | | |
| 15:00 | 1 | 248 | 12 | 261 | 10 | 269 | 1 | 280 | 2 | 0 | 6 | 8 | 0 | 0 | 0 | 0 | 549 | | 0 | 0 | 0 | 0 | 277 | | |
| 15:15 | 1 | 254 | 11 | 266 | 18 | 280 | 2 | 300 | 2 | 1 | 10 | 13 | 0 | 1 | 0 | 1 | 580 | | 0 | 0 | 0 | 0 | 294 | | |
| 15:30 | 1 | 257 | 11 | 269 | 14 | 266 | 0 | 280 | 1 | 0 | 8 | 9 | 0 | 0 | 0 | 0 | 558 | | 0 | 0 | 0 | 0 | 290 | | |
| 15:45 | 1 | 284 | 10 | 295 | 15 | 257 | 1 | 273 | 1 | 1 | 12 | 14 | 0 | 0 | 0 | 0 | 582 | 2269 | 0 | 0 | 0 | 0 | 322 | 1183 | |
| 16:00 | 1 | 249 | 8 | 258 | 21 | 268 | 0 | 289 | 1 | 0 | 10 | 11 | 0 | 0 | 0 | 0 | 558 | 2278 | 0 | 0 | 0 | 0 | 288 | 1194 | |
| 16:15 | 4 | 238 | 11 | 253 | 17 | 296 | 2 | 315 | 1 | 0 | 7 | 8 | 0 | 0 | 0 | 0 | 576 | 2274* | 0 | 0 | 0 | 0 | 309 | 1209 | |
| 16:30 | 2 | 258 | 17 | 277 | 26 | 321 | 0 | 347 | 3 | 0 | 11 | 14 | 0 | 1 | 1 | 2 | 640 | 2356+ | 0 | 0 | 0 | 0 | 334 | 1253 | |
| 16:45 | 1 | 233 | 12 | 246 | 31 | 336 | 0 | 367 | 4 | 0 | 12 | 16 | 0 | 0 | 0 | 0 | 629 | 2403* | 0 | 0 | 0 | 0 | 349 | 1280 | |
| 17:00 | 3 | 245 | 13 | 261 | 14 | 282 | 0 | 296 | 2 | 0 | 11 | 13 | 0 | 0 | 0 | 0 | 570 | 2415* | 0 | 0 | 0 | 0 | 296 | 1288 | |
| 17:15 | 2 | 256 | 12 | 270 | 17 | 258 | 0 | 275 | 0 | 0 | 6 | 6 | 0 | 0 | 1 | 1 | 552 | 2391 | 0 | 0 | 0 | 0 | 291 | 1270 | |
| 17:30 | 2 | 255 | 13 | 270 | 17 | 223 | 2 | 242 | 2 | 0 | 7 | 9 | 0 | 0 | 0 | 0 | 521 | 2272 | 0 | 0 | 0 | 0 | 292 | 1228 | |
| 17:45 | 2 | 219 | 11 | 232 | 13 | 246 | 0 | 259 | 1 | 0 | 6 | 7 | 0 | 0 | 0 | 0 | 498 | 2141 | 0 | 0 | 0 | 0 | 254 | 1133 | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |

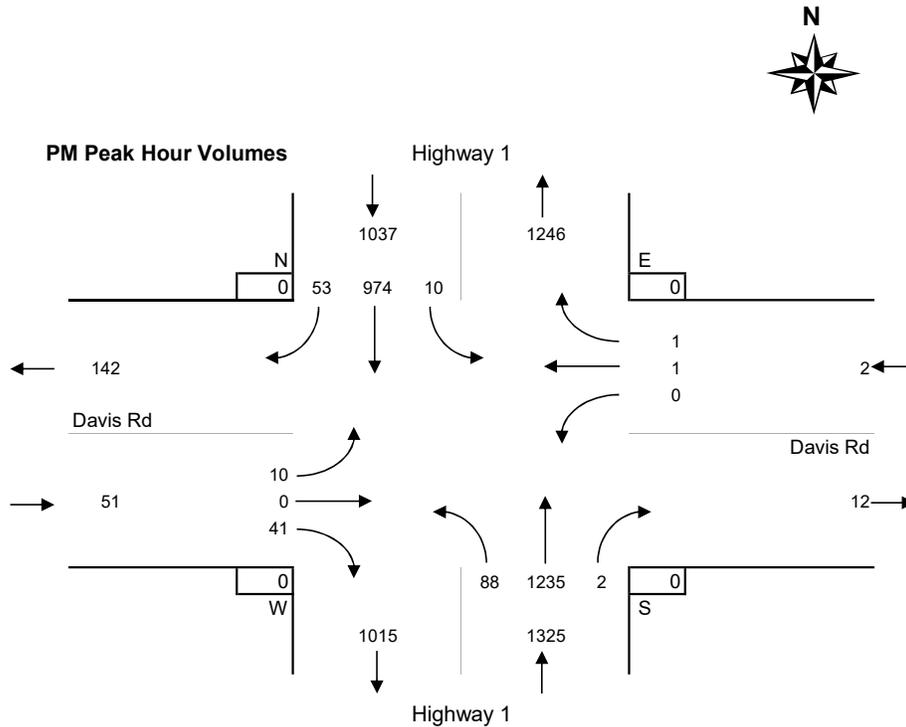
| | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------|-----|------|-----|------|---|------|----|---|-----|-----|---|---|---|---|------|--|---|---|---|---|------|
| Total | 21 | 2996 | 141 | 3158 | 213 | 3302 | 8 | 3523 | 20 | 2 | 106 | 128 | 0 | 2 | 2 | 4 | 6813 | | 0 | 0 | 0 | 0 | 3458 |
| Avg Hr | 7 | 999 | 47 | 1053 | 71 | 1101 | 3 | 1174 | 7 | 1 | 35 | 43 | 0 | 1 | 1 | 1 | 2271 | | 0 | 0 | 0 | 0 | |

Peak hour of the intersection

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|-----|------|------|-----|------|------|------|-------|--|-----|-----|-----|-----|------|
| Pk Hr | 10 | 974 | 53 | 1037 | 88 | 1235 | 2 | 1325 | 10 | 0 | 41 | 51 | 0 | 1 | 1 | 2 | 2415* | | 0 | 0 | 0 | 0 | 1288 |
| 15x4 | 16 | 1032 | 68 | 1108 | 124 | 1344 | 8 | 1468 | 16 | 0 | 48 | 64 | 0 | 4 | 4 | 8 | 2560+ | | 0 | 0 | 0 | 0 | 1416 |
| PHF | 0.63 | 0.94 | 0.78 | 0.94 | 0.71 | 0.92 | 0.25 | 0.90 | 0.63 | n/a | 0.85 | 0.80 | n/a | 0.25 | 0.25 | 0.25 | 0.94 | | n/a | n/a | n/a | n/a | 0.91 |

Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|-----|------|------|-----|------|------|------|-------|--|-----|-----|-----|-----|------|
| Pk Hr | 10 | 974 | 53 | 1037 | 88 | 1235 | 2 | 1325 | 10 | 0 | 41 | 51 | 0 | 1 | 1 | 2 | 2415* | | 0 | 0 | 0 | 0 | 1288 |
| 15x4 | 16 | 1032 | 68 | 1108 | 124 | 1344 | 8 | 1468 | 16 | 0 | 48 | 64 | 0 | 4 | 4 | 8 | 2560+ | | 0 | 0 | 0 | 0 | 1416 |
| PHF | 0.63 | 0.94 | 0.78 | 0.94 | 0.71 | 0.92 | 0.25 | 0.90 | 0.63 | n/a | 0.85 | 0.80 | n/a | 0.25 | 0.25 | 0.25 | 0.94 | | n/a | n/a | n/a | n/a | 0.91 |



Entire Survey Period

5 Hours

| | Highway 1 | | | | Highway 1 | | | | Davis Rd | | | | Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Total | 30 | 4537 | 170 | 4737 | 236 | 4557 | 10 | 4803 | 42 | 2 | 197 | 241 | 4 | 2 | 2 | 8 | 9789 | 0 | 0 | 1 | 0 |
| Avg Hr | 6 | 907 | 34 | 947 | 47 | 911 | 2 | 961 | 8 | 0 | 39 | 48 | 1 | 0 | 0 | 2 | 1958 | 0 | 0 | 0 | 0 |

AM Peak Period

2 Hours

| | Highway 1 | | | | Highway 1 | | | | Davis Rd | | | | Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 9 | 1541 | 29 | 1579 | 23 | 1255 | 2 | 1280 | 22 | 0 | 91 | 113 | 4 | 0 | 0 | 4 | 2976 | 0 | 0 | 1 | 0 |
| Avg Hr | 5 | 771 | 15 | 790 | 12 | 628 | 1 | 640 | 11 | 0 | 46 | 57 | 2 | 0 | 0 | 2 | 1488 | 0 | 0 | 1 | 0 |

MD Peak Period

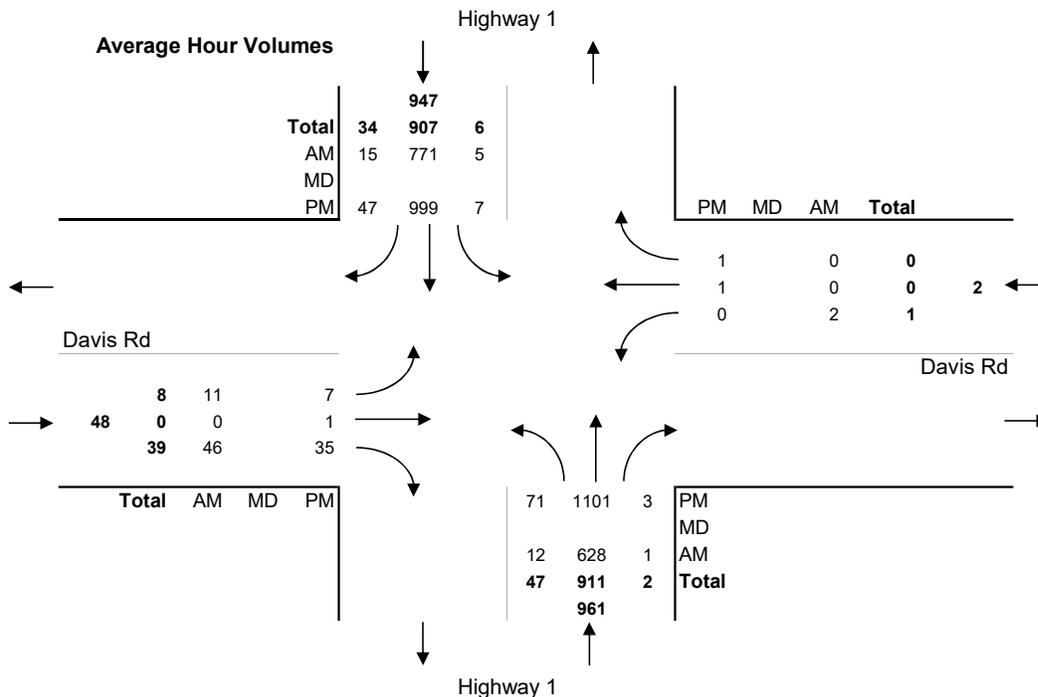
Hours

| | Highway 1 | | | | Highway 1 | | | | Davis Rd | | | | Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |
| Avg Hr | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period

3 Hours

| | Highway 1 | | | | Highway 1 | | | | Davis Rd | | | | Davis Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 21 | 2996 | 141 | 3158 | 213 | 3302 | 8 | 3523 | 20 | 2 | 106 | 128 | 0 | 2 | 2 | 4 | 6813 | 0 | 0 | 0 | 0 |
| Avg Hr | 7 | 999 | 47 | 1053 | 71 | 1101 | 3 | 1174 | 7 | 1 | 35 | 43 | 0 | 1 | 1 | 1 | 2271 | 0 | 0 | 0 | 0 |



Major Route: Highway 1
Minor Route: Edgelow Road
Municipality: Ladysmith
Filename: 6-Highway 1 @ Edgelow Rd-Aug 9, 2018.xlsx
Location #: 6

Date: August 9, 2018
Day-of-week: Thursday

East/West Route: Edgelow Road
Intersection Type: 4-leg
Signalized?: Yes
Weather: Clear and dry

Vehicle Classifications: Regular Vehicles
 Light Trucks
 Heavy Trucks
 Bicycles

This data is for All Vehicles Combined

| Shift | Start | End | Duration |
|--------------|-------------|--------------|-------------|
| AM | 7:00 | 9:00 | 2.00 |
| MD | | | |
| PM | 15:00 | 18:00 | 3.00 |
| Total | 7:00 | 18:00 | 5.00 |

Notes: 24-hour clock used for reporting (15-minute increments)
 North Approach - southbound vehicles approaching intersection from the north
 15x4 - 15 min volume (from maximum 15 minute period of movement/approach in peak hour period [*]) x 4
 Pedestrians - N indicates pedestrians crossing north approach (east/west)

Comments:

PM Peak Period
All Vehicles Combined

Highway 1 @ Edgelow Road
Thursday, August 9, 2018

| Time Period | Highway 1 NORTH Approach | | | | Highway 1 SOUTH Approach | | | | Thicke Rd WEST Approach | | | | Edgelow Rd EAST Approach | | | | Total Volume | | Peak | Crosswalks | | | | Conflict | |
|-------------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------|-------|------|------------|---|---|-----|----------|----|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | 15-min | Hour | | N | S | W | E | 15 min | Hr |
| 15:00 | 2 | 232 | 7 | 241 | 2 | 273 | 2 | 277 | 6 | 2 | 1 | 9 | 0 | 0 | 1 | 1 | 528 | | 0 | 0 | 0 | 0 | 284 | | |
| 15:15 | 0 | 256 | 3 | 259 | 4 | 289 | 0 | 293 | 12 | 0 | 2 | 14 | 0 | 0 | 2 | 2 | 568 | | 0 | 0 | 0 | 0 | 303 | | |
| 15:30 | 0 | 257 | 3 | 260 | 6 | 273 | 0 | 279 | 7 | 1 | 1 | 9 | 0 | 0 | 0 | 0 | 548 | | 0 | 0 | 0 | 0 | 280 | | |
| 15:45 | 2 | 286 | 0 | 288 | 4 | 249 | 0 | 253 | 12 | 0 | 0 | 12 | 1 | 0 | 2 | 3 | 556 | 2200 | 0 | 0 | 0 | 0 | 304 | 1171 | |
| 16:00 | 0 | 245 | 4 | 249 | 3 | 299 | 0 | 302 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 573 | 2245* | 0 | 0 | 0 | 0 | 321 | 1208 | |
| 16:15 | 3 | 231 | 5 | 239 | 7 | 287 | 1 | 295 | 13 | 1 | 1 | 15 | 0 | 0 | 1 | 1 | 550 | 2227* | 0 | 0 | 0 | 0 | 305 | 1210 | |
| 16:30 | 0 | 246 | 3 | 249 | 1 | 334 | 1 | 336 | 9 | 0 | 0 | 9 | 1 | 1 | 2 | 4 | 598 | 2277* | 0 | 0 | 0 | 0 | 347 | 1277 | |
| 16:45 | 0 | 253 | 1 | 254 | 6 | 340 | 1 | 347 | 9 | 0 | 1 | 10 | 0 | 0 | 1 | 1 | 612 | 2333+ | 0 | 0 | 0 | 0 | 351 | 1324 | |
| 17:00 | 3 | 240 | 2 | 245 | 1 | 288 | 0 | 289 | 9 | 0 | 0 | 9 | 0 | 0 | 3 | 3 | 546 | 2306 | 0 | 0 | 0 | 0 | 303 | 1306 | |
| 17:15 | 0 | 260 | 0 | 260 | 1 | 259 | 2 | 262 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 530 | 2286 | 0 | 0 | 0 | 0 | 269 | 1270 | |
| 17:30 | 1 | 256 | 0 | 257 | 5 | 235 | 0 | 240 | 5 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 503 | 2191 | 0 | 0 | 0 | 0 | 266 | 1189 | |
| 17:45 | 1 | 222 | 0 | 223 | 2 | 243 | 1 | 246 | 3 | 0 | 0 | 3 | 0 | 0 | 1 | 1 | 473 | 2052 | 0 | 0 | 0 | 0 | 249 | 1087 | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |
| n/a | | | | | | | | | | | | | | | | | | | | | | | | | |

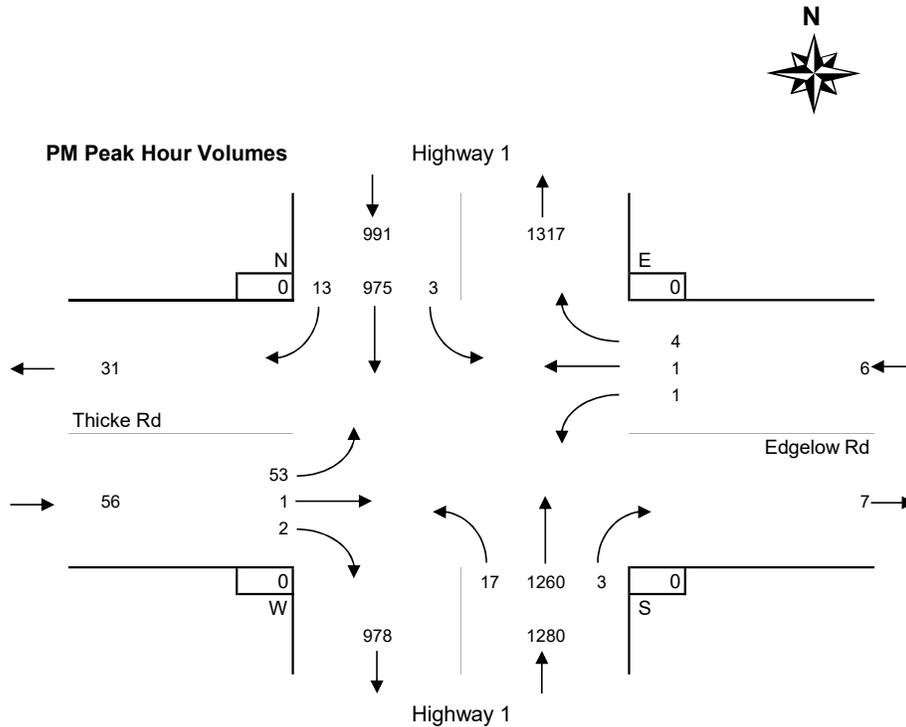
| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------|----|------|----|------|---|------|-----|---|---|-----|---|---|----|----|------|--|---|---|---|---|--|------|
| Total | 12 | 2984 | 28 | 3024 | 42 | 3369 | 8 | 3419 | 115 | 4 | 7 | 126 | 2 | 1 | 13 | 16 | 6585 | | 0 | 0 | 0 | 0 | | 3518 |
| Avg Hr | 4 | 995 | 9 | 1008 | 14 | 1123 | 3 | 1140 | 38 | 1 | 2 | 42 | 1 | 0 | 4 | 5 | 2195 | | 0 | 0 | 0 | 0 | | |

Peak hour of the intersection

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--|-----|-----|-----|-----|--|------|
| Pk Hr | 3 | 975 | 13 | 991 | 17 | 1260 | 3 | 1280 | 53 | 1 | 2 | 56 | 1 | 1 | 4 | 6 | 2333* | | 0 | 0 | 0 | 0 | | 1324 |
| 15x4 | 12 | 1012 | 20 | 1016 | 28 | 1360 | 4 | 1388 | 88 | 4 | 4 | 88 | 4 | 4 | 8 | 16 | 2448+ | | 0 | 0 | 0 | 0 | | 1476 |
| PHF | 0.25 | 0.96 | 0.65 | 0.98 | 0.61 | 0.93 | 0.75 | 0.92 | 0.60 | 0.25 | 0.50 | 0.64 | 0.25 | 0.25 | 0.50 | 0.38 | 0.95 | | n/a | n/a | n/a | n/a | | 0.90 |

Peak hour of conflicting volumes for the intersection

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--|-----|-----|-----|-----|--|------|
| Pk Hr | 3 | 975 | 13 | 991 | 17 | 1260 | 3 | 1280 | 53 | 1 | 2 | 56 | 1 | 1 | 4 | 6 | 2333* | | 0 | 0 | 0 | 0 | | 1324 |
| 15x4 | 12 | 1012 | 20 | 1016 | 28 | 1360 | 4 | 1388 | 88 | 4 | 4 | 88 | 4 | 4 | 8 | 16 | 2448+ | | 0 | 0 | 0 | 0 | | 1476 |
| PHF | 0.25 | 0.96 | 0.65 | 0.98 | 0.61 | 0.93 | 0.75 | 0.92 | 0.60 | 0.25 | 0.50 | 0.64 | 0.25 | 0.25 | 0.50 | 0.38 | 0.95 | | n/a | n/a | n/a | n/a | | 0.90 |



Entire Survey Period

5 Hours

| | Highway 1 | | | | Highway 1 | | | | Thicke Rd | | | | Edgelow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Total | 16 | 4576 | 47 | 4639 | 55 | 4615 | 11 | 4681 | 147 | 5 | 8 | 160 | 6 | 1 | 19 | 26 | 9506 | 0 | 0 | 0 | 0 |
| Avg Hr | 3 | 915 | 9 | 928 | 11 | 923 | 2 | 936 | 29 | 1 | 2 | 32 | 1 | 0 | 4 | 5 | 1901 | 0 | 0 | 0 | 0 |

AM Peak Period

2 Hours

| | Highway 1 | | | | Highway 1 | | | | Thicke Rd | | | | Edgelow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 4 | 1592 | 19 | 1615 | 13 | 1246 | 3 | 1262 | 32 | 1 | 1 | 34 | 4 | 0 | 6 | 10 | 2921 | 0 | 0 | 0 | 0 |
| Avg Hr | 2 | 796 | 10 | 808 | 7 | 623 | 2 | 631 | 16 | 1 | 1 | 17 | 2 | 0 | 3 | 5 | 1461 | 0 | 0 | 0 | 0 |

MD Peak Period

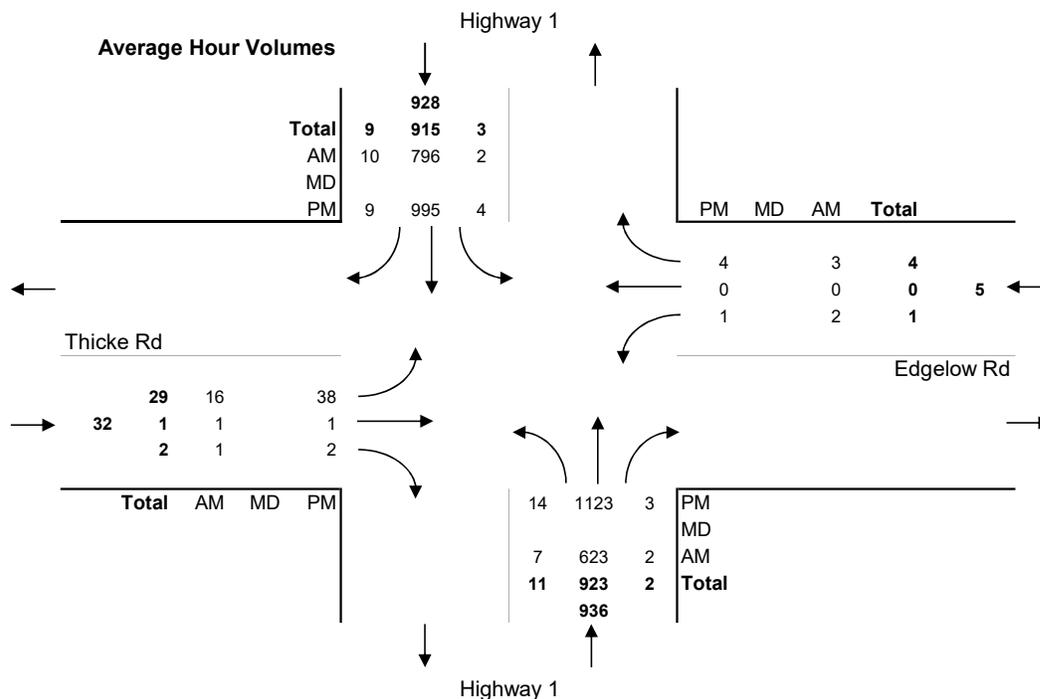
Hours

| | Highway 1 | | | | Highway 1 | | | | Thicke Rd | | | | Edgelow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | |
| Avg Hr | | | | | | | | | | | | | | | | | | | | | |

PM Peak Period

3 Hours

| | Highway 1 | | | | Highway 1 | | | | Thicke Rd | | | | Edgelow Rd | | | | Total Volume | Crosswalks | | | |
|--------|----------------|------|-------|-------|----------------|------|-------|-------|---------------|------|-------|-------|---------------|------|-------|-------|-----------------|------------|---|---|---|
| | NORTH Approach | | | | SOUTH Approach | | | | WEST Approach | | | | EAST Approach | | | | | N | S | W | E |
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | | | |
| Totals | 12 | 2984 | 28 | 3024 | 42 | 3369 | 8 | 3419 | 115 | 4 | 7 | 126 | 2 | 1 | 13 | 16 | 6585 | 0 | 0 | 0 | 0 |
| Avg Hr | 4 | 995 | 9 | 1008 | 14 | 1123 | 3 | 1140 | 38 | 1 | 2 | 42 | 1 | 0 | 4 | 5 | 2195 | 0 | 0 | 0 | 0 |



APPENDIX B

MOTI TRAFFIC SIGNAL WARRANT ANALYSIS

| | | | |
|------------------------|----------------------------|---------------------|----------------|
| Intersection Location: | Highway 1 and Grouhel Road | | |
| District | Town of Ladysmith | Traffic Count Data: | August 2018 |
| Completed by: | ML | Warrant Date: | September 2018 |

Data Requirements

| | | |
|--|---|--------------------------------|
| Adjacent Land Use (Circle one): | <input checked="" type="checkbox"/> Urban | <input type="checkbox"/> Rural |
| Population of Built Up Area: | 8,600 | |
| Signal Correctable Accident Frequency (acc/y): | 4.6 | |

| | | | |
|---------------|-----------|---------------|------------|
| Major Street: | Highway 1 | Minor Street: | Grouhel Rd |
|---------------|-----------|---------------|------------|

| | | | |
|--|---|--|---|
| Number of Incoming Lanes on Each Approach: | | Number of Incoming Lanes on Each Approach: | |
| Northbound: | 2 | Eastbound: | 1 |
| Southbound: | 2 | Westbound: | 0 |

Existing Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| Time Period | Southbound | Northbound | Total of Both |
|-------------|------------|------------|---------------|
| 7am to 8am | 782 | 976 | 1758 |
| 8am to 9am | 941 | 918 | 1859 |
| 3pm to 4pm | 1373 | 1316 | 2689 |
| 4pm to 5pm | 1397 | 1448 | 2845 |
| 5pm to 6pm | 1459 | 1279 | 2738 |

Highest of 4 consecutive hours on an average day*

| Time Period | Southbound | Northbound | Total of Both |
|-------------|------------|------------|---------------|
| 8am to 9am | 941 | 918 | 1859 |
| 3pm to 4pm | 1373 | 1316 | 2689 |
| 4pm to 5pm | 1397 | 1448 | 2845 |
| 5pm to 6pm | 1459 | 1279 | 2738 |

Peak hour traffic volumes on an average day

| Time Period | Southbound | Northbound | Total of Both |
|------------------|------------|------------|---------------|
| 4:15pm to 5:15pm | 1464 | 1515 | 2979 |

5 Year Projected Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| | |
|--|------|
| Southbound 5-year Growth Factor ⁺ = | 1.10 |
| Northbound 5-year Growth Factor ⁺ = | 1.10 |

Existing Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|-------------|-----------|-----------|----------------|
| 7am to 8am | 54 | | 54 |
| 8am to 9am | 46 | | 46 |
| 3pm to 4pm | 38 | | 38 |
| 4pm to 5pm | 49 | | 49 |
| 5pm to 6pm | 35 | | 35 |

Highest of 4 consecutive hours on an average day*

| Time Period | Eastbound | Westbound | Higher of Each |
|-------------|-----------|-----------|----------------|
| 8am to 9am | 46 | | 46 |
| 3pm to 4pm | 38 | | 38 |
| 4pm to 5pm | 49 | | 49 |
| 5pm to 6pm | 35 | | 35 |

Peak hour traffic volumes on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|------------------|-----------|-----------|----------------|
| 4:15pm to 5:15pm | 50 | | 50 |

5 Year Projected Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| | |
|---|------|
| Eastbound 5-year Growth Factor ⁺ = | 1.10 |
| Westbound 5-year Growth Factor ⁺ = | 1.10 |



| | | | |
|------------------------|----------------------------|---------------------|----------------|
| Intersection Location: | Highway 1 and Grouhel Road | | |
| District | Town of Ladysmith | Traffic Count Data: | August 2018 |
| Completed by: | ML | Warrant Date: | September 2018 |

| Time Period | Southbound | Northbound | Total of Both |
|-------------|------------|------------|---------------|
| 7am to 8am | 863 | 1078 | 1941 |
| 8am to 9am | 1039 | 1014 | 2052 |
| 3pm to 4pm | 1516 | 1453 | 2969 |
| 4pm to 5pm | 1542 | 1599 | 3141 |
| 5pm to 6pm | 1611 | 1412 | 3023 |

Highest of 4 consecutive hours on an average day

| Time Period | Southbound | Northbound | Total of Both |
|-------------|------------|------------|---------------|
| 8am to 9am | 1039 | 1014 | 2052 |
| 3pm to 4pm | 1516 | 1453 | 2969 |
| 4pm to 5pm | 1542 | 1599 | 3141 |
| 5pm to 6pm | 1611 | 1412 | 3023 |

Peak hour traffic volumes on an average day

| Time Period | Southbound | Northbound | Total of Both |
|------------------|------------|------------|---------------|
| 4:15pm to 5:15pm | 1616 | 1673 | 3289 |

Major Route: Yes No

Posted or 85th Percentile Speed (km/hr)**:

Distance to Nearest Signal (m):

Traffic Direction: 2-way 1-way

| Time Period | Eastbound | Westbound | Higher of Each |
|-------------|-----------|-----------|----------------|
| 7am to 8am | 60 | | 60 |
| 8am to 9am | 51 | | 51 |
| 3pm to 4pm | 42 | | 42 |
| 4pm to 5pm | 54 | | 54 |
| 5pm to 6pm | 39 | | 39 |

Highest of 4 consecutive hours on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|-------------|-----------|-----------|----------------|
| 8am to 9am | 51 | | 51 |
| 3pm to 4pm | 42 | | 42 |
| 4pm to 5pm | 54 | | 54 |
| 5pm to 6pm | 39 | | 39 |

Peak hour traffic volumes on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|------------------|-----------|-----------|----------------|
| 4:15pm to 5:15pm | 55 | | 55 |

Major Route: Yes No

Existing Peak Hour Delay (veh-hr) ** :

| | |
|-----------|------|
| Eastbound | 6.02 |
| Westbound | 0.00 |

* Note: The Ministry standard is to use the highest 4 consecutive hours of an average day, however, since the longest consecutive hours from the traffic survey was 3 hours, the highest of 3 consecutive hours will be used in the analysis.

** Actual observed speed is higher than the posted speed limit.

+ Growth factors for the major route were calculated by using historical AADT data, growth factors for the minor route were calculated by taking the average of the growth factors along both directions of the major route.

++ Peak hour delays were calculated using the Synchro software.

Questions which we do not have information on are left blank, and questions which are "Not Applicable" are crossed-out.

WARRANT NO.1 MINIMUM VEHICULAR VOLUME

| Number of Incoming Lanes on Approach | | Large Urban Areas (> 10,000 population) | | | | Small Urban Areas (<10,000 population) | |
|--------------------------------------|-----------|---|-------|--------------------------|-------|--|-------|
| | | Posted or 85th Percentile Speed | | | | | |
| | | =< 70 km/hr | | > 70 km/hr | | | |
| | | Peak 7 Hour Volume (vph) | | Peak 7 Hour Volume (vph) | | Peak 7 Hour Volume (vph) | |
| Major | Minor | Major | Minor | Major | Minor | Major | Minor |
| 1 | 1 | 500 | 150 | 350 | 105 | 350 | 105 |
| 2 or more | 1 | 600 | 150 | 420 | 105 | 420 | 105 |
| 2 or more | 2 or more | 600 | 200 | 420 | 140 | 420 | 140 |
| 1 | 2 or more | 500 | 200 | 350 | 140 | 350 | 140 |

| Existing Scenario to be Considered | | | |
|--------------------------------------|-------|-----------------|-------|
| Number of Incoming Lanes on Approach | | Minimum Volumes | |
| Major | Minor | Major | Minor |
| 2 or more | 1 | 420 | 105 |

Existing Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| Time Period | Total of Both Major Approaches | Higher than Minimum? |
|-------------|--------------------------------|----------------------|
| 7am to 8am | 1758 | Yes |
| 8am to 9am | 1859 | Yes |
| 3pm to 4pm | 2689 | Yes |
| 4pm to 5pm | 2845 | Yes |
| 5pm to 6pm | 2738 | Yes |

Existing Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| Time Period | Higher of Each Minor Approaches | Higher than Minimum? |
|-------------|---------------------------------|----------------------|
| 7am to 8am | 54 | No |
| 8am to 9am | 46 | No |
| 3pm to 4pm | 38 | No |
| 4pm to 5pm | 49 | No |
| 5pm to 6pm | 35 | No |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied. No hours of minor street traffic volume exceeds the minimum vehicular volume criteria.

WARRANT NO.2 Interruption of Continuous Traffic

| Number of Incoming Lanes on Approach | | Large Urban Areas (> 10,000 population) | | | | Small Urban Areas (<10,000 population) | |
|--------------------------------------|-----------|---|-------|--------------------------|-------|--|-------|
| | | Posted or 85th Percentile Speed | | | | | |
| | | =< 70 km/hr | | > 70 km/hr | | | |
| | | Peak 7 Hour Volume (vph) | | Peak 7 Hour Volume (vph) | | | |
| Major | Minor | Major | Minor | Major | Minor | Major | Minor |
| 1 | 1 | 750 | 75 | 525 | 50 | 525 | 50 |
| 2 or more | 1 | 900 | 75 | 630 | 50 | 630 | 50 |
| 2 or more | 2 or more | 900 | 100 | 630 | 70 | 630 | 70 |
| 1 | 2 or more | 750 | 100 | 525 | 70 | 525 | 70 |

| Existing Scenario to be Considered | | | |
|--------------------------------------|-------|-----------------|-------|
| Number of Incoming Lanes on Approach | | Minimum Volumes | |
| Major | Minor | Major | Minor |
| 2 or more | 1 | 630 | 50 |

Existing Traffic Volumes (by Approach)

8 hours traffic volume on an average day

| Time Period | Total of Both Major Approaches | Higher than Minimum? |
|-------------|--------------------------------|----------------------|
| 7am to 8am | 1758 | Yes |
| 8am to 9am | 1859 | Yes |
| 3pm to 4pm | 2689 | Yes |
| 4pm to 5pm | 2845 | Yes |
| 5pm to 6pm | 2738 | Yes |

Existing Traffic Volumes (by Approach)

8 hours traffic volume on an average day

| Time Period | Higher of Each Minor Approaches | Higher than Minimum? |
|-------------|---------------------------------|----------------------|
| 7am to 8am | 54 | Yes |
| 8am to 9am | 46 | No |
| 3pm to 4pm | 38 | No |
| 4pm to 5pm | 49 | No |
| 5pm to 6pm | 35 | No |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied. 4 hours of minor street traffic volume do not exceed the minimum vehicular volume criteria.

WARRANT NO.3 Progressive Movement

1) Is the distance to the nearest signal greater than or equal to 300m? Yes No

One Way

Are the adjacent signals so far apart that they do not provide a necessary degree of vehicle platooning and speed control?

~~Yes No~~

Two Way

Do the adjacent signals constitute a progressive system?

Yes No

Are the adjacent signals so far apart that they do not provide a necessary degree of vehicle platooning and speed control?

Yes No

Warrant Satisfied? Yes No

Explanation: The adjacent signals do not constitute a progressive system.

WARRANT NO.4 Accident Experience (based on ICBC Claims Data)

1) Have five or more reported accidents of types susceptible to correction by traffic signals occurred within a 12 month period, with each accident involving personal injury or damage exceeding \$1000? Yes No

2) Have adequate trials of less restrictive remedies with satisfactory observance and enforcement failed to reduce the accident frequency? Yes No

3) Will the installation of a signal allow progressive traffic flow? Yes No

Warrant Satisfied? Yes No

Explanation: - Previous 5 years (2012 to 2017): 4 accidents total as per MOTI data

WARRANT NO.5 System Warrant

1) Are both the major and minor streets "Major Routes"? Yes No

2) Does the total Peak Hour Volume over all approaches equal or exceed 1000 vph? ~~Yes No~~

3) Are one or more of Warrants 1,2,6,7 and 9 satisfied using Projected 5 Year Volumes? ~~Yes No~~

4) Does the Peak 5 Hour Weekend Volume equal or exceed 1000 vph? ~~Yes No~~

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because Highway 1 is the only major route.

WARRANT NO.6 Combination Warrant

1) Have other measures been tried which cause less delay and inconvenience to traffic than traffic signals?

Yes No

| Number of Incoming Lanes on Approach | | Large Urban Areas (> 10,000 population) | | | | Small Urban Areas (<10,000 population) | |
|--------------------------------------|-----------|---|-------|------------|-------|--|-----|
| | | Posted or 85th Percentile Speed | | | | Peak 7 Hour Volume (vph) | |
| | | =< 70 km/hr | | > 70 km/hr | | | |
| | | Major | Minor | Major | Minor | | |
| 1 | 1 | 600 | 120 | 420 | 85 | 420 | 85 |
| 2 or more | 1 | 720 | 120 | 500 | 85 | 500 | 85 |
| 2 or more | 2 or more | 720 | 160 | 500 | 110 | 500 | 110 |
| 1 | 2 or more | 600 | 160 | 420 | 110 | 420 | 110 |

| Existing Scenario to be Considered | | | |
|--------------------------------------|-------|-----------------|-------|
| Number of Incoming Lanes on Approach | | Minimum Volumes | |
| Major | Minor | Major | Minor |
| 2 or more | 1 | 500 | 85 |

Existing Traffic Volumes (by Approach)
7 hours traffic volume on an average day

| Time Period | Total of Both Major Approaches | Higher than Minimum? |
|-------------|--------------------------------|----------------------|
| 7am to 8am | 1758 | Yes |
| 8am to 9am | 1859 | Yes |
| 3pm to 4pm | 2689 | Yes |
| 4pm to 5pm | 2845 | Yes |
| 5pm to 6pm | 2738 | Yes |

Existing Traffic Volumes (by Approach)
7 hours traffic volume on an average day

| Time Period | Higher of Each Minor Approaches | Higher than Minimum? |
|-------------|---------------------------------|----------------------|
| 7am to 8am | 54 | No |
| 8am to 9am | 46 | No |
| 3pm to 4pm | 38 | No |
| 4pm to 5pm | 49 | No |
| 5pm to 6pm | 35 | No |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied. All hours of minor street traffic volume does not exceed the minimum vehicular volume criteria.

WARRANT NO.7 Four Hour Volumes

| | Posted or 85th Percentile Speed | |
|-------------------------------|---------------------------------|------------|
| | =< 70 km/hr | > 70 km/hr |
| Rural | Figure 1 | Figure 2 |
| Large Urban (>10,000 pop.) | Figure 1 | Figure 2 |
| Small Urban (<10,000 pop.) | Figure 2 | Figure 2 |

| Existing Scenario to be Considered | |
|------------------------------------|----------|
| Location Type | Figure |
| Small Urban (<10,000 pop.) | Figure 2 |

Highest of 4 consecutive hours on an average day

Highest of 4 consecutive hours on an average day

| Time Period | Southbound | Northbound | Total of Both | Time Period | Eastbound | Westbound | Higher of |
|-------------|------------|------------|---------------|-------------|-----------|-----------|-----------|
| | | | | | | | Each |
| 8am to 9am | 941 | 918 | 1859 | 8am to 9am | 46 | 0 | 46 |
| 3pm to 4pm | 1373 | 1316 | 2689 | 3pm to 4pm | 38 | 0 | 38 |
| 4pm to 5pm | 1397 | 1448 | 2845 | 4pm to 5pm | 49 | 0 | 49 |
| 5pm to 6pm | 1459 | 1279 | 2738 | 5pm to 6pm | 35 | 0 | 35 |

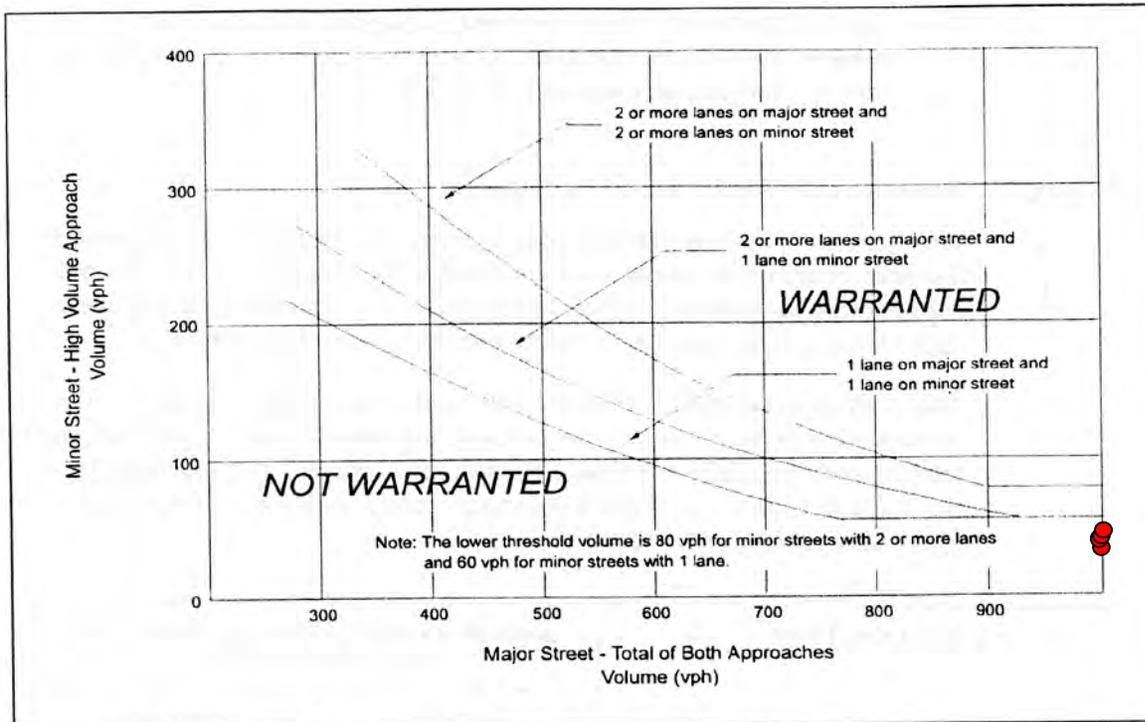


Figure 2. Warrant 7: four hour volumes 2

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because none of the 4 consecutive hours exceed or equal the appropriate threshold.

WARRANT NO.8 Peak Hour Delay

| | | |
|----------------------------------|--|-----------|
| | Number of Minor Street Incoming Lanes on Approach with Highest Peak Hour Delay | |
| | 1 | 2 or more |
| Minimum Peak Hour Delay (veh-hr) | 4 | 5 |
| Minimum Peak Hour Traffic (vph) | 100 | 150 |

| | |
|-----------------------------------|---|
| Number of Intersection Approaches | Minimum total Peak Hour Traffic for All Approaches Combined (vph) |
| 3 | 650 |
| 4 | 800 |

| Existing Scenario to be Considered | |
|---|-----|
| Minimum Peak Hour Delay (veh-hr) | 4 |
| Minimum Peak Hour Traffic (vph) | 100 |
| Minimum total Peak Hour Traffic for All Approaches Combined (vph) | 650 |

Peak hour traffic volumes on an average day

| Time Period | Southbound | Northbound | Total of Both |
|----------------|------------|------------|---------------|
| 415pm to 515pm | 1464 | 1515 | 2979 |

Peak hour traffic volumes on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|------------------------------------|------------|-----------|----------------|
| 415pm to 515pm | 50 | 0 | 50 |
| Existing Peak Hour Delay (veh-hr): | | | |
| | Eastbound: | | 6.02 |
| | Westbound: | | 0.00 |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because the existing peak hour traffic for the minor approach does not exceed 100 vehicles per hour

WARRANT NO.9 Peak Hour Volumes

| | | |
|-------------------------------|--|------------|
| Location Type | Large Urban Areas (> 10000 population) | |
| | Posted or 85th Percentile Speed | |
| | ≤ 70 km/hr | > 70 km/hr |
| Rural | Figure 3 | Figure 4 |
| Large Urban (>10,000 pop.) | Figure 3 | Figure 4 |
| Small Urban (<10,000 pop.) | Figure 4 | Figure 4 |

| Existing Scenario to be Considered | |
|------------------------------------|----------|
| Location Type | Figure |
| Small Urban (<10,000 pop.) | Figure 4 |

Peak hour traffic volumes on an average day

| Time Period | Southbound | Northbound | Total of Both |
|------------------|------------|------------|---------------|
| 4:15pm to 5:15pm | 1464 | 1515 | 2979 |

Peak hour traffic volumes on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|------------------|-----------|-----------|----------------|
| 4:15pm to 5:15pm | 50 | 0 | 50 |

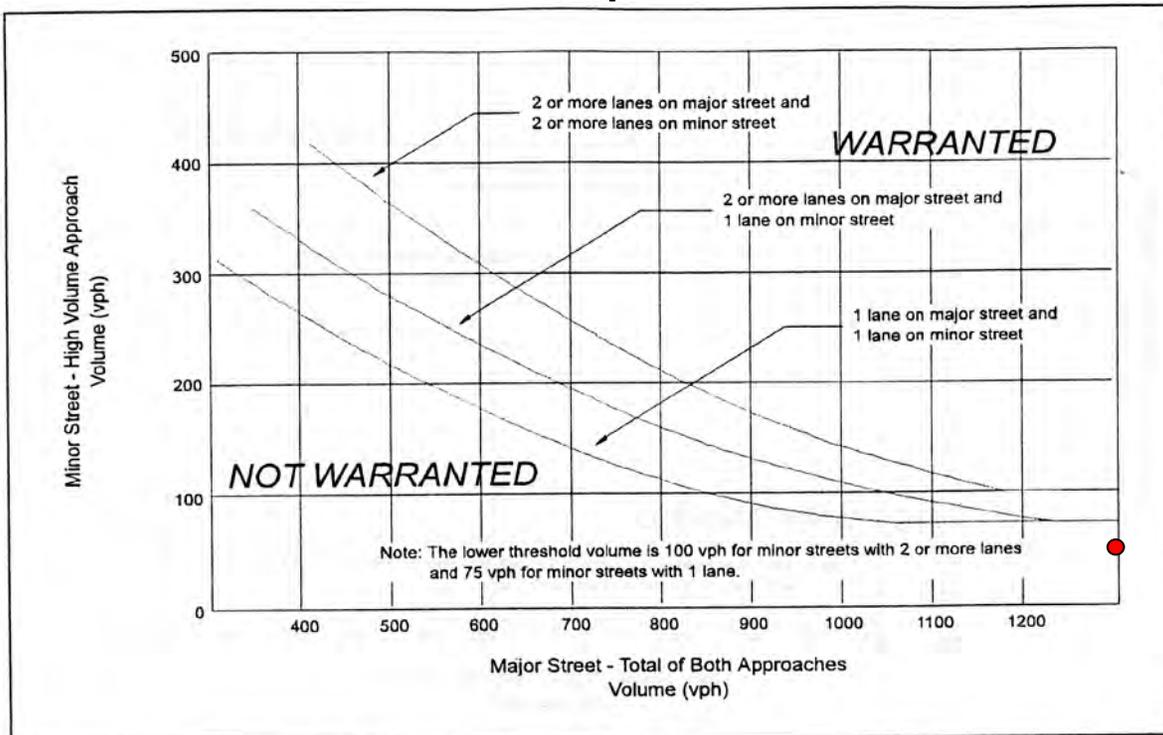


Figure 4. Warrant 9: peak hour volumes 2

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because the peak hour volume does not exceed or equal the required threshold.



Summary

Warrant

| | | |
|---------------------------------------|------------------------------------|---|
| 1) Minimum Vehicular Volume | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 2) Interruption of Continuous Traffic | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 3) Progressive Movement | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 4) Accident Experience | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 5) System Warrant | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 6) Combination Warrant | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 7) Four Hour Volume | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 8) Peak Hour Delay | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 9) Peak Hour Volume | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |

Comments:

- This intersection does not warrant the installation of a traffic signal.



| | | | |
|------------------------|--------------------------|---------------------|----------------|
| Intersection Location: | Highway 1 and S Davis St | | |
| District: | Town of Ladysmith | Traffic Count Data: | August 2018 |
| Completed by: | ML | Warrant Date: | September 2018 |

Data Requirements

| | | |
|--|--|-----------------------------|
| Adjacent Land Use (Circle one): | <input checked="" type="radio"/> Urban | <input type="radio"/> Rural |
| Population of Built Up Area: | 8,600 | |
| Signal Correctable Accident Frequency (acc/y): | 0.2 | |

| | | | |
|---------------|-----------|---------------|-----------|
| Major Street: | Highway 1 | Minor Street: | Davis St. |
|---------------|-----------|---------------|-----------|

| | | | |
|--|--|---|--|
| Number of Incoming Lanes on Each Approach: | | | |
| Northbound: | | 2 | |
| Southbound: | | 2 | |

| | | | |
|---|------------|------------|----------|
| Existing Traffic Volumes (by Approach) | | | |
| <i>7 hours traffic volume on an average day</i> | | | |
| | | | Total of |
| Time Period | Southbound | Northbound | Both |
| 7am to 8am | 792 | 625 | 1417 |
| 8am to 9am | 787 | 655 | 1442 |
| 3pm to 4pm | 1091 | 1133 | 2224 |
| 4pm to 5pm | 1034 | 1318 | 2352 |
| 5pm to 6pm | 1033 | 1072 | 2105 |

| | | | |
|--|------------|------------|----------|
| <i>Highest of 4 consecutive hours on an average day*</i> | | | |
| | | | Total of |
| Time Period | Southbound | Northbound | Both |
| 8am to 9am | 787 | 655 | 1442 |
| 3pm to 4pm | 1091 | 1133 | 2224 |
| 4pm to 5pm | 1034 | 1318 | 2352 |
| 5pm to 6pm | 1033 | 1072 | 2105 |

| | | | |
|--|------------|------------|----------|
| <i>Peak hour traffic volumes on an average day</i> | | | |
| | | | Total of |
| Time Period | Southbound | Northbound | Both |
| 4:15pm to 5:15pm | 1037 | 1325 | 2362 |

| | |
|---|------|
| 5 Year Projected Traffic Volumes (by Approach) | |
| <i>7 hours traffic volume on an average day</i> | |
| Southbound 5-year Growth Factor ⁺ = | 1.10 |
| Northbound 5-year Growth Factor ⁺ = | 1.10 |

| | | | |
|--|--|---|--|
| Number of Incoming Lanes on Each Approach: | | | |
| Eastbound: | | 1 | |
| Westbound: | | 1 | |

| | | | |
|---|-----------|-----------|-----------|
| Existing Traffic Volumes (by Approach) | | | |
| <i>7 hours traffic volume on an average day</i> | | | |
| | | | Higher of |
| Time Period | Eastbound | Westbound | Each |
| 7am to 8am | 68 | 3 | 68 |
| 8am to 9am | 45 | 1 | 45 |
| 3pm to 4pm | 44 | 1 | 44 |
| 4pm to 5pm | 49 | 2 | 49 |
| 5pm to 6pm | 35 | 2 | 35 |

| | | | |
|--|-----------|-----------|-----------|
| <i>Highest of 4 consecutive hours on an average day*</i> | | | |
| | | | Higher of |
| Time Period | Eastbound | Westbound | Each |
| 8am to 9am | 45 | 1 | 45 |
| 3pm to 4pm | 44 | 1 | 44 |
| 4pm to 5pm | 49 | 2 | 49 |
| 5pm to 6pm | 35 | 2 | 35 |

| | | | |
|--|-----------|-----------|-----------|
| <i>Peak hour traffic volumes on an average day</i> | | | |
| | | | Higher of |
| Time Period | Eastbound | Westbound | Each |
| 4:15pm to 5:15pm | 51 | 2 | 51 |

| | |
|---|------|
| 5 Year Projected Traffic Volumes (by Approach) | |
| <i>7 hours traffic volume on an average day</i> | |
| Eastbound 5-year Growth Factor ⁺ = | 1.10 |
| Westbound 5-year Growth Factor ⁺ = | 1.10 |

| | | | |
|------------------------|--------------------------|---------------------|----------------|
| Intersection Location: | Highway 1 and S Davis St | | |
| District | Town of Ladysmith | Traffic Count Data: | August 2018 |
| Completed by: | ML | Warrant Date: | September 2018 |

| | Total of | | |
|-------------|------------|------------|------|
| Time Period | Southbound | Northbound | Both |
| 7am to 8am | 874 | 690 | 1564 |
| 8am to 9am | 869 | 723 | 1592 |
| 3pm to 4pm | 1205 | 1251 | 2455 |
| 4pm to 5pm | 1142 | 1455 | 2597 |
| 5pm to 6pm | 1141 | 1184 | 2324 |

Highest of 4 consecutive hours on an average day

| | Total of | | |
|-------------|------------|------------|------|
| Time Period | Southbound | Northbound | Both |
| 7am to 8am | 869 | 723 | 1592 |
| 8am to 9am | 1205 | 1251 | 2455 |
| 4pm to 5pm | 1142 | 1455 | 2597 |
| 5pm to 6pm | 1141 | 1184 | 2324 |

Peak hour traffic volumes on an average day

| | Total of | | |
|----------------|------------|------------|------|
| Time Period | Southbound | Northbound | Both |
| 415pm to 515pm | 1145 | 1463 | 2608 |

Major Route: Yes No

Posted or 85th Percentile Speed (km/hr)**:

Distance to Nearest Signal (m):

Traffic Direction: 2-way 1-way

| | Higher of | | |
|-------------|-----------|-----------|------|
| Time Period | Eastbound | Westbound | Each |
| 7am to 8am | 75 | 3 | 75 |
| 8am to 9am | 50 | 1 | 50 |
| 3pm to 4pm | 49 | 1 | 49 |
| 4pm to 5pm | 54 | 2 | 54 |
| 5pm to 6pm | 39 | 2 | 39 |

Highest of 4 consecutive hours on an average day

| | Higher of | | |
|-------------|-----------|-----------|------|
| Time Period | Eastbound | Westbound | Each |
| 8am to 9am | 50 | 1 | 50 |
| 3pm to 4pm | 49 | 1 | 49 |
| 4pm to 5pm | 54 | 2 | 54 |
| 5pm to 6pm | 39 | 2 | 39 |

Peak hour traffic volumes on an average day

| | Higher of | | |
|----------------|-----------|-----------|------|
| Time Period | Eastbound | Westbound | Each |
| 415pm to 515pm | 56 | 2 | 56 |

Major Route: Yes No

Existing Peak Hour Delay (veh-hr) ** :

| | |
|-----------|------|
| Eastbound | 0.76 |
| Westbound | 0.10 |

* Note: The Ministry standard is to use the highest 4 consecutive hours of an average day, however, since the longest consecutive hours from the traffic survey was 3 hours, the highest of 3 consecutive hours will be used in the analysis.

** Actual observed speed is higher than the posted speed limit.

+ Growth factors for the major route were calculated by using historical AADT data, growth factors for the minor route were calculated by taking the average of the growth factors along both directions of the major route.

++ Peak hour delays were calculated using the Synchro software.

Questions which we do not have information on are left blank, and questions which are "Not Applicable" are crossed-out.

WARRANT NO.1 MINIMUM VEHICULAR VOLUME

| Number of Incoming Lanes on Approach | | Large Urban Areas (> 10,000 population) | | | | Small Urban Areas (<10,000 population) | |
|--------------------------------------|-----------|---|-----|--------------------------|-----|--|-------|
| | | Posted or 85th Percentile Speed | | | | Peak 7 Hour Volume (vph) | |
| | | =< 70 km/hr | | > 70 km/hr | | | |
| Major | Minor | Peak 7 Hour Volume (vph) | | Peak 7 Hour Volume (vph) | | Major | Minor |
| 1 | 1 | 500 | 150 | 350 | 105 | 350 | 105 |
| 2 or more | 1 | 600 | 150 | 420 | 105 | 420 | 105 |
| 2 or more | 2 or more | 600 | 200 | 420 | 140 | 420 | 140 |
| 1 | 2 or more | 500 | 200 | 350 | 140 | 350 | 140 |

| Existing Scenario to be Considered | | | |
|--------------------------------------|-------|-----------------|-------|
| Number of Incoming Lanes on Approach | | Minimum Volumes | |
| Major | Minor | Major | Minor |
| 2 | 1 | 420 | 105 |

Existing Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| Time Period | Total of Both Major Approaches | Higher than Minimum? |
|-------------|--------------------------------|----------------------|
| 7am to 8am | 1417 | Yes |
| 8am to 9am | 1442 | Yes |
| 2pm to 3pm | 2224 | Yes |
| 3pm to 4pm | 2352 | Yes |
| 4pm to 5pm | 2105 | Yes |

Existing Traffic Volumes (by Approach)

7 hours traffic volume on an average day

| Time Period | Higher of Each Minor Approaches | Higher than Minimum? |
|-------------|---------------------------------|----------------------|
| 7am to 8am | 68 | No |
| 8am to 9am | 45 | No |
| 2pm to 3pm | 44 | No |
| 3pm to 4pm | 49 | No |
| 4pm to 5pm | 35 | No |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied. The minor approach does not exceed the minimum volume criteria.

WARRANT NO.2 Interruption of Continuous Traffic

| Number of Incoming Lanes on Approach | | Large Urban Areas (> 10,000 population) | | | | Small Urban Areas (<10,000 population) | |
|--------------------------------------|-----------|---|-----|--------------------------|----|--|-------|
| | | Posted or 85th Percentile Speed | | | | Peak 7 Hour Volume (vph) | |
| | | =< 70 km/hr | | > 70 km/hr | | | |
| Major | Minor | Peak 7 Hour Volume (vph) | | Peak 7 Hour Volume (vph) | | Major | Minor |
| 1 | 1 | 750 | 75 | 525 | 50 | 525 | 50 |
| 2 or more | 1 | 900 | 75 | 630 | 50 | 630 | 50 |
| 2 or more | 2 or more | 900 | 100 | 630 | 70 | 630 | 70 |
| 1 | 2 or more | 750 | 100 | 525 | 70 | 525 | 70 |

| Existing Scenario to be Considered | | | |
|--------------------------------------|-------|-----------------|-------|
| Number of Incoming Lanes on Approach | | Minimum Volumes | |
| Major | Minor | Major | Minor |
| 2 | 1 | 630 | 50 |

Existing Traffic Volumes (by Approach)

8 hours traffic volume on an average day

| Time Period | Total of Both Major Approaches | Higher than Minimum? |
|-------------|--------------------------------|----------------------|
| 7am to 8am | 1417 | Yes |
| 8am to 9am | 1442 | Yes |
| 3pm to 4pm | 2224 | Yes |
| 4pm to 5pm | 2352 | Yes |
| 5pm to 6pm | 2105 | Yes |

Existing Traffic Volumes (by Approach)

8 hours traffic volume on an average day

| Time Period | Higher of Each Minor Approaches | Higher than Minimum? |
|-------------|---------------------------------|----------------------|
| 7am to 8am | 68 | Yes |
| 8am to 9am | 45 | No |
| 3pm to 4pm | 44 | No |
| 4pm to 5pm | 49 | No |
| 5pm to 6pm | 35 | No |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied. Most hours of minor street traffic volume do not exceed the minimum vehicular volume criteria.

WARRANT NO.3 Progressive Movement

1) Is the distance to the nearest signal greater than or equal to 300m? Yes No

One Way

Are the adjacent signals so far apart that they do not provide a necessary degree of vehicle platooning and speed control? ~~Yes No~~

Two Way

Do the adjacent signals constitute a progressive system? Yes No

Are the adjacent signals so far apart that they do not provide a necessary degree of vehicle platooning and speed control? Yes No

Warrant Satisfied? Yes No

Explanation: The adjacent signals do not constitute a progressive system.

WARRANT NO.4 Accident Experience (based on ICBC Claims Data)

1) Have five or more reported accidents of types susceptible to correction by traffic signals occurred within a 12 month period, with each accident involving personal injury or damage exceeding \$1000? Yes No

2) Have adequate trials of less restrictive remedies with satisfactory observance and enforcement failed to reduce the accident frequency? ~~Yes No~~

3) Will the installation of a signal allow progressive traffic flow? ~~Yes No~~

Warrant Satisfied? Yes No

Explanation: - Previous 5 years (2012 to 2016): 1 accidents total based on MOTI data

WARRANT NO.5 System Warrant

1) Are both the major and minor streets "Major Routes"? Yes No

2) Does the total Peak Hour Volume over all approaches equal or exceed 1000 vph? ~~Yes No~~

3) Are one or more of Warrants 1,2,6,7 and 9 satisfied using Projected 5 Year Volumes? ~~Yes No~~

4) Does the Peak 5 Hour Weekend Volume equal or exceed 1000 vph? ~~Yes No~~

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because Highway 1 is the only major route.

WARRANT NO.6 Combination Warrant

1) Have other measures been tried which cause less delay and inconvenience to traffic than traffic signals? Yes No

| Number of Incoming Lanes on Approach | | Large Urban Areas (> 10,000 population) | | | | Small Urban Areas (<10,000 population) | |
|--------------------------------------|-----------|---|-----|--------------------------|-----|--|-------|
| | | Posted or 85th Percentile Speed | | | | Peak 7 Hour Volume (vph) | |
| | | =< 70 km/hr | | > 70 km/hr | | | |
| Major | Minor | Peak 7 Hour Volume (vph) | | Peak 7 Hour Volume (vph) | | Major | Minor |
| 1 | 1 | 600 | 120 | 420 | 85 | 420 | 85 |
| 2 or more | 1 | 720 | 120 | 500 | 85 | 500 | 85 |
| 2 or more | 2 or more | 720 | 160 | 500 | 110 | 500 | 110 |
| 1 | 2 or more | 600 | 160 | 420 | 110 | 420 | 110 |

| Existing Scenario to be Considered | | | |
|--------------------------------------|-------|-----------------|-------|
| Number of Incoming Lanes on Approach | | Minimum Volumes | |
| Major | Minor | Major | Minor |
| 2 | 1 | 500 | 85 |

Existing Traffic Volumes (by Approach)
7 hours traffic volume on an average day

| Time Period | Total of Both Major Approaches | Higher than Minimum? |
|-------------|--------------------------------|----------------------|
| 7am to 8am | 1417 | Yes |
| 8am to 9am | 1442 | Yes |
| 2pm to 3pm | 2224 | Yes |
| 3pm to 4pm | 2352 | Yes |
| 4pm to 5pm | 2105 | Yes |

Existing Traffic Volumes (by Approach)
7 hours traffic volume on an average day

| Time Period | Higher of Each Minor Approaches | Higher than Minimum? |
|-------------|---------------------------------|----------------------|
| 7am to 8am | 68 | No |
| 8am to 9am | 45 | No |
| 2pm to 3pm | 44 | No |
| 3pm to 4pm | 49 | No |
| 4pm to 5pm | 35 | No |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied. All hours of the minor route's traffic volume does not exceed the minimum volume criteria.

WARRANT NO.7 Four Hour Volumes

| | Posted or 85th Percentile Speed | |
|----------------------------|---------------------------------|------------|
| | =< 70 km/hr | > 70 km/hr |
| Rural | Figure 1 | Figure 2 |
| Large Urban (>10,000 pop.) | Figure 1 | Figure 2 |
| Small Urban (<10,000 pop.) | Figure 2 | Figure 2 |

| Existing Scenario to be Considered | |
|------------------------------------|----------|
| Location Type | Figure |
| Small Urban (<10,000 pop.) | Figure 2 |

Highest of 4 consecutive hours on an average day

Highest of 4 consecutive hours on an average day

| Time Period | Southbound | Northbound | Total of Both | Time Period | Eastbound | Westbound | Higher of Each |
|-------------|------------|------------|---------------|-------------|-----------|-----------|----------------|
| 8am to 9am | 787 | 655 | 1442 | 8am to 9am | 45 | 1 | 45 |
| 3pm to 4pm | 1091 | 1133 | 2224 | 3pm to 4pm | 44 | 1 | 44 |
| 4pm to 5pm | 1034 | 1318 | 2352 | 4pm to 5pm | 49 | 2 | 49 |
| 5pm to 6pm | 1033 | 1072 | 2105 | 5pm to 6pm | 35 | 2 | 35 |

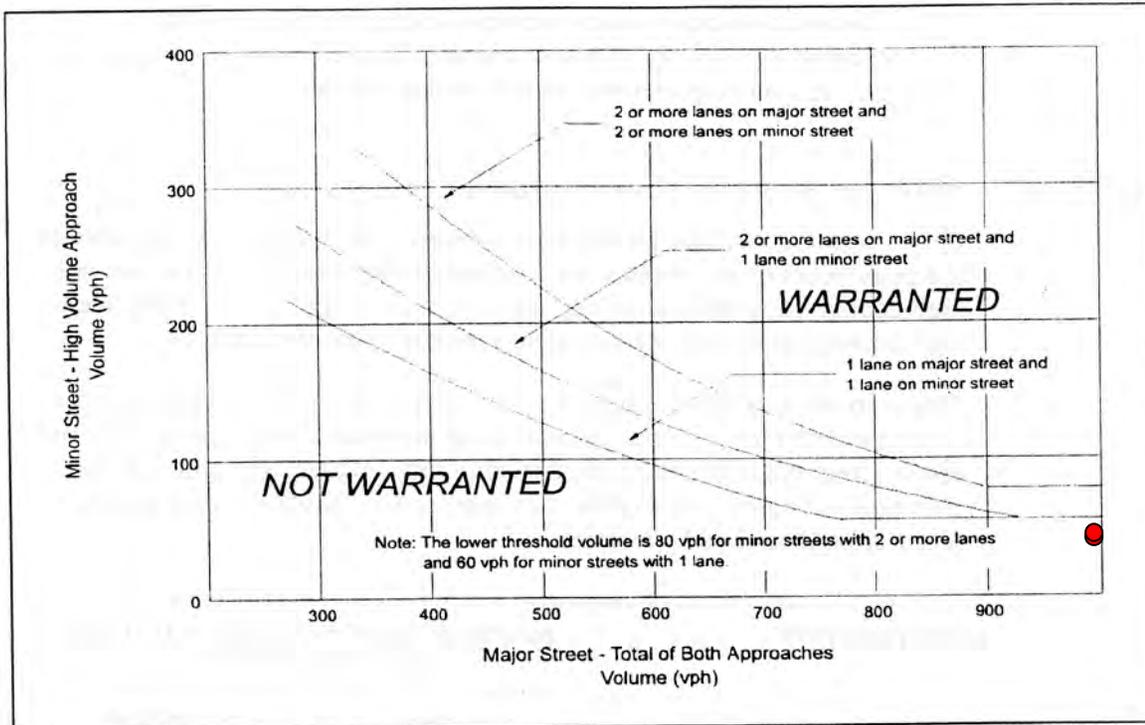


Figure 2. Warrant 7: four hour volumes 2

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because none of the 3 consecutive hours exceeds or equals the appropriate threshold.

WARRANT NO.8 Peak Hour Delay

| | | |
|----------------------------------|--|-----------|
| | Number of Minor Street Incoming Lanes on Approach with Highest Peak Hour Delay | |
| | 1 | 2 or more |
| Minimum Peak Hour Delay (veh-hr) | 4 | 5 |
| Minimum Peak Hour Traffic (vph) | 100 | 150 |

| | |
|-----------------------------------|---|
| Number of Intersection Approaches | Minimum total Peak Hour Traffic for All Approaches Combined (vph) |
| 3 | 650 |
| 4 | 800 |

| Existing Scenario to be Considered | |
|---|-----|
| Minimum Peak Hour Delay (veh-hr) | 4 |
| Minimum Peak Hour Traffic (vph) | 100 |
| Minimum total Peak Hour Traffic for All Approaches Combined (vph) | 800 |

Peak hour traffic volumes on an average day

| Time Period | Southbound | Northbound | Total of Both |
|----------------|------------|------------|---------------|
| 415pm to 515pm | 1037 | 1325 | 2362 |

Peak hour traffic volumes on an average day

| Time Period | Eastbound | Westbound | Higher of Each |
|------------------------------------|------------|-----------|----------------|
| 415pm to 515pm | 51 | 2 | 51 |
| Existing Peak Hour Delay (veh-hr): | | | |
| | Eastbound: | | 0.76 |
| | Westbound: | | 0.10 |

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because the existing peak hour delay for the minor approach does not exceed 4 veh-hr.

WARRANT NO.9 Peak Hour Volumes

| | | |
|----------------------------|--|------------|
| Location Type | Large Urban Areas (> 10000 population) | |
| | Posted or 85th Percentile Speed | |
| | =< 70 km/hr | > 70 km/hr |
| Rural | Figure 3 | Figure 4 |
| Large Urban (>10,000 pop.) | Figure 3 | Figure 4 |
| Small Urban (<10,000 pop.) | Figure 4 | Figure 4 |

| Existing Scenario to be Considered | |
|------------------------------------|----------|
| Location Type | Figure |
| Small Urban (<10,000 pop.) | Figure 4 |

Peak hour traffic volumes on an average day

Peak hour traffic volumes on an average day

| Time Period | Southbound | Northbound | Total of Both | Time Period | Eastbound | Westbound | Higher of Each |
|----------------|------------|------------|---------------|----------------|-----------|-----------|----------------|
| 415pm to 515pm | 1037 | 1325 | 2362 | 415pm to 515pm | 51 | 2 | 51 |

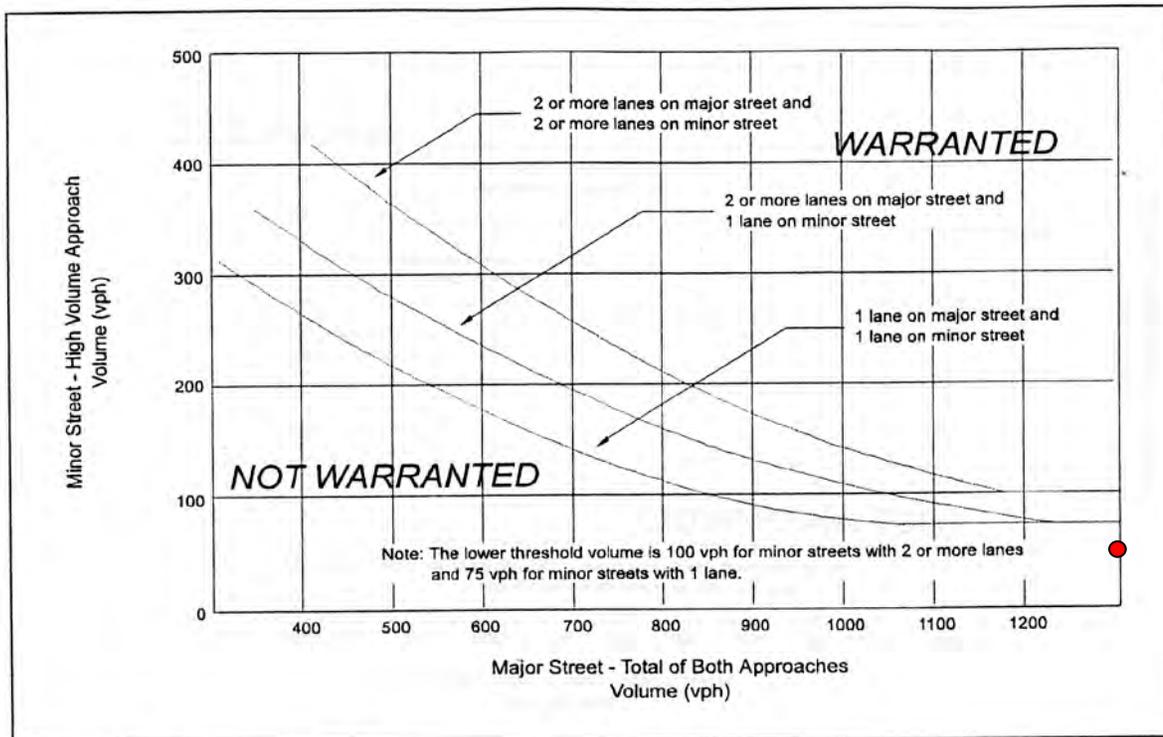


Figure 4. Warrant 9: peak hour volumes 2

Warrant Satisfied? Yes No

Explanation: The warrant is not satisfied because the peak hour volume does not exceed or equal the required threshold.



Summary

Warrant

| | | |
|---------------------------------------|------------------------------------|---|
| 1) Minimum Vehicular Volume | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 2) Interruption of Continuous Traffic | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 3) Progressive Movement | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 4) Accident Experience | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 5) System Warrant | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 6) Combination Warrant | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 7) Four Hour Volume | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 8) Peak Hour Delay | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |
| 9) Peak Hour Volume | <input type="checkbox"/> Satisfied | <input checked="" type="checkbox"/> Not Satisfied |

Comments:

- This intersection does not warrant the installation of a traffic signal.

MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
LEFT TURN WARRANT CALCULATIONS

<-Enter data in shaded cells

| | |
|------------------------|------------------|
| WARRANT CALCULATED BY: | Max Leung |
| DATE: | 9/13/2018 |

INPUT

| INTERSECTION DESCRIPTION | |
|--------------------------|--|
| INTERSECTION | Highway 1 & Transfer Beach Blvd/ Roberts St |
| N/S ROUTE | Highway 1 |
| DIRECTION | SBL |
| TRAFFIC COUNT | 9-Aug-18 |
| TIMING SHEET | N/A |

| INTERSECTION GEOMETRICS | |
|-----------------------------|-------------------|
| # OF OPPOSING THRU LANES | 2 |
| SPEED LIMIT ON MAJOR STREET | 70 (km/hr) |

| TRAFFIC VOLUME INPUT | |
|---------------------------------|-------------------|
| ACTUAL VOLUME-AM (E/B LT) | 21 (vph) |
| ACTUAL VOLUME-NOON (E/B LT) | N/A (vph) |
| ACTUAL VOLUME-PM (E/B LT) | 29 (vph) |
| OPPOSING VOLUME-AM (W/B Thru) | 739 (vph) |
| OPPOSING VOLUME-NOON (W/B Thru) | N/A (vph) |
| OPPOSING VOLUME-PM (W/B Thru) | 1236 (vph) |

OUTPUT

| GUIDELINE A - MIN PEAK HOUR VOLS - AM WARRANT | |
|---|---------------------------------|
| Product of opposing volume and LHT vol | 15519 (vph) ² |
| Warrant requirements | 90000 |
| PERCENT FILLED | 17 % |

| GUIDELINE A - MIN PEAK HOUR VOLS -12 NOON -WARRANT | |
|--|-------------------------------|
| Product of opposing volume and LHT vol | N/A (vph) ² |
| Warrant requirements | N/A |
| PERCENT FILLED | N/A % |

| GUIDELINE A - MIN PEAK HOUR VOLS -PM WARRANT | |
|--|---------------------------------|
| Product of opposing volume and LHT vol | 35844 (vph) ² |
| Warrant requirements | 90000 |
| PERCENT FILLED | 40 % |

| | |
|---|----------------------------------|
| LEFT TURN MIN PEAK HR VOL WARRANT GUIDELINE: | 40 % |
| LEFT TURN VOL/SPEED WARRANT GUIDELINE A MET?: | NO |
| LEFT TURN DELAY WARRANT GUIDELINE B MET?: | NO |
| LEFT TURN CRASH WARRANT GUIDELINE MET C?: | NO |
| LEFT TURN VOL WARRANT GUIDELINES MET UNDER A, B OR C?: | LT PHASE IS NOT WARRANTED |

2019 Traffic Volume for Southbound Left-Turn

| GUIDELINE B - AM DELAY WARRANT | |
|---|-------------------------|
| Delay calculated from Synchro for LHT movement | 0.19 hrs/peak hr |
| Does the LHT vol exceed warrant 'Guideline' B TEM | NO |

| GUIDELINE B - NOON DELAY WARRANT | |
|---|------------------------|
| Delay calculated from Synchro for LHT movement | N/A hrs/peak hr |
| Does the LHT vol exceed warrant 'Guideline' B TEM | N/A |

| GUIDELINE B - PM DELAY WARRANT | |
|---|-------------------------|
| Delay calculated from Synchro for LHT movement | 0.36 hrs/peak hr |
| Does the LHT vol exceed warrant 'Guideline' B TEM | NO |

| GUIDELINE C - CRASH WARRANT | |
|--|---------------------|
| NUMBER OF LHT CRASHES IN 12 MONTHS? | 0 LT crashes |
| DOES NUMBER EXCEED 5 THEREFORE WARRANTS MET? | NO |

| GUIDELINE A - AM SPEED WARRANT | |
|---|-----------|
| Does the LHT vol exceed warrant 'Guideline' A TEM | NO |

| GUIDELINE A - 12 NOON SPEED WARRANT | |
|---|------------|
| Does the LHT vol exceed warrant 'Guideline' A TEM | N/A |

| GUIDELINE A - PM SPEED WARRANT | |
|---|-----------|
| Does the LHT vol exceed warrant 'Guideline' A TEM | NO |

APPENDIX C

EXISTING VEHICLE SPEEDS AND TRAFFIC CLASSIFICATION DATA

Hwy 1 north of Grouhel Rd

SB

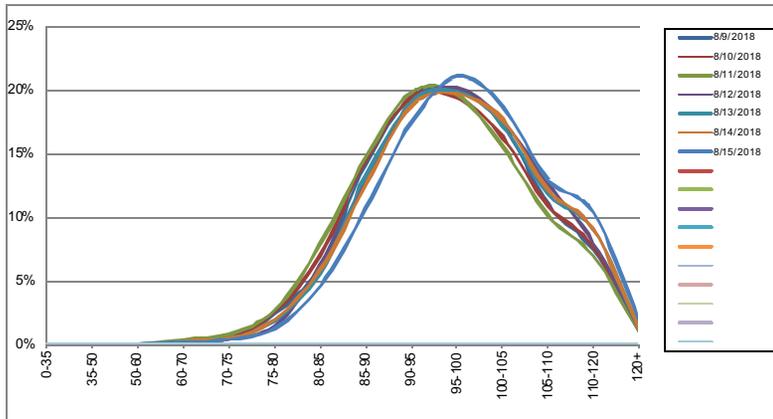
August 9, 2018 to August 15, 2018



| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------|--------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | Speed |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | | |
| 8/9/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.6% | 2.4% | 6.2% | 14.2% | 19.5% | 20.1% | 17.3% | 11.0% | 7.4% | 1.0% | 1 | 3 | 2 | 39 | 95 | 391 | 991 | 2276 | 3117 | 3213 | 2768 | 1763 | 1193 | 163 | 16015 | 97 |
| 8/10/2018 | 0.0% | 0.0% | 0.0% | 0.3% | 0.6% | 2.6% | 7.0% | 14.6% | 19.4% | 19.5% | 16.3% | 10.9% | 7.7% | 1.0% | 1 | 0 | 4 | 46 | 97 | 441 | 1181 | 2438 | 3257 | 3260 | 2732 | 1828 | 1292 | 175 | 16752 | 97 |
| 8/11/2018 | 0.0% | 0.0% | 0.1% | 0.4% | 0.9% | 2.7% | 7.9% | 14.7% | 19.8% | 19.7% | 15.6% | 10.1% | 7.0% | 1.1% | 1 | 1 | 9 | 57 | 124 | 400 | 1153 | 2147 | 2891 | 2870 | 2270 | 1477 | 1018 | 156 | 14574 | 96 |
| 8/12/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.5% | 1.6% | 6.2% | 13.0% | 18.9% | 20.1% | 17.6% | 12.7% | 8.0% | 1.3% | 1 | 0 | 2 | 28 | 75 | 237 | 937 | 1965 | 2870 | 3056 | 2670 | 1919 | 1216 | 193 | 15169 | 98 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.5% | 1.9% | 5.7% | 13.3% | 19.0% | 20.0% | 17.3% | 11.8% | 9.1% | 1.2% | 1 | 0 | 1 | 26 | 78 | 301 | 874 | 2054 | 2939 | 3084 | 2664 | 1829 | 1400 | 190 | 15441 | 98 |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.3% | 0.5% | 2.0% | 5.9% | 12.6% | 18.8% | 19.7% | 17.7% | 12.1% | 9.1% | 1.3% | 4 | 1 | 2 | 43 | 76 | 311 | 908 | 1938 | 2899 | 3043 | 2733 | 1875 | 1407 | 197 | 15437 | 98 |
| 8/15/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.4% | 1.3% | 4.7% | 10.7% | 17.5% | 21.1% | 18.7% | 13.0% | 10.4% | 1.9% | 3 | 0 | 6 | 32 | 70 | 208 | 739 | 1695 | 2764 | 3338 | 2963 | 2051 | 1641 | 300 | 15810 | 99 |
| Total | 0.0% | 0.0% | 0.0% | 0.2% | 0.6% | 2.1% | 6.2% | 13.3% | 19.0% | 20.0% | 17.2% | 11.7% | 8.4% | 1.3% | 12 | 5 | 26 | 271 | 615 | 2289 | 6783 | 14513 | 20737 | 21864 | 18800 | 12742 | 9167 | 1374 | 109198 | 98 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 12 | 5 | 26 | 271 | 615 | 2289 | 6783 | 14513 | 20737 | 21864 | 18800 | 12742 | 9167 | 1374 | 1E+05 |
| % Total | 0.0% | 0.0% | 0.0% | 0.2% | 0.6% | 2.1% | 6.2% | 13.3% | 19.0% | 20.0% | 17.2% | 11.7% | 8.4% | 1.3% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.0% | 0.3% | 0.9% | 2.9% | 9.2% | 22.4% | 41.4% | 61.5% | 78.7% | 90.3% | 98.7% | 100% | |
| Inverse Accum. % | ##### | ##### | ##### | 99.7% | 99.1% | 97.1% | 90.8% | 77.6% | 58.6% | 38.5% | 21.3% | 9.7% | 1.3% | 0.0% | |
| Average Speed | 98 KMH | | | | | | | | | | | | | | |



Site notes.

Hwy 1 north of Grouhel Rd

NB

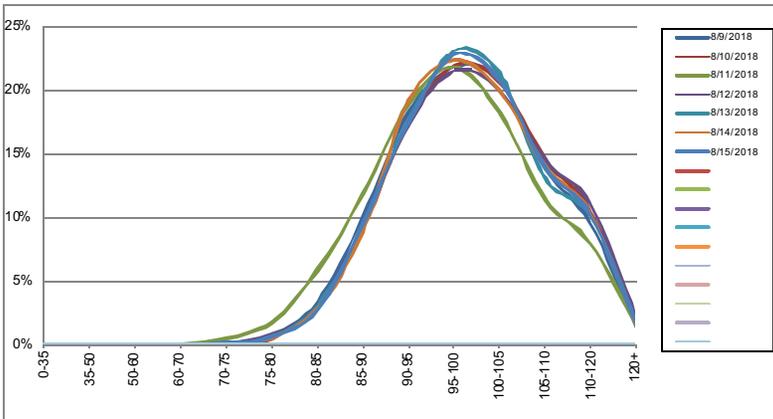
August 9, 2018 to August 15, 2018



| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------|--------|------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | peed |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | | |
| 8/9/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.7% | 3.4% | 10.1% | 18.2% | 21.8% | 20.8% | 13.8% | 9.6% | 1.4% | 0 | 5 | 2 | 7 | 27 | 117 | 553 | 1654 | 3001 | 3595 | 3415 | 2274 | 1574 | 232 | 16456 | 99 |
| 8/10/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.5% | 3.0% | 9.3% | 17.4% | 22.0% | 20.7% | 14.5% | 10.5% | 1.9% | 0 | 3 | 3 | 5 | 23 | 93 | 534 | 1629 | 3061 | 3863 | 3639 | 2556 | 1850 | 332 | 17591 | 100 |
| 8/11/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.5% | 1.8% | 5.8% | 11.8% | 19.0% | 21.8% | 18.3% | 11.4% | 7.9% | 1.5% | 0 | 6 | 0 | 9 | 79 | 263 | 862 | 1748 | 2799 | 3225 | 2696 | 1684 | 1172 | 224 | 14767 | 98 |
| 8/12/2018 | 0.0% | 0.1% | 0.0% | 0.1% | 0.2% | 0.9% | 3.0% | 9.4% | 17.4% | 21.5% | 20.0% | 14.4% | 11.0% | 2.1% | 0 | 11 | 1 | 9 | 25 | 124 | 415 | 1318 | 2423 | 3009 | 2787 | 2016 | 1538 | 287 | 13963 | 100 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.7% | 3.1% | 9.3% | 17.6% | 23.1% | 21.3% | 13.0% | 10.2% | 1.6% | 0 | 3 | 2 | 11 | 12 | 101 | 462 | 1410 | 2662 | 3485 | 3217 | 1971 | 1534 | 237 | 15107 | 100 |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.5% | 2.9% | 8.9% | 19.1% | 22.4% | 19.9% | 14.0% | 10.3% | 1.6% | 0 | 2 | 1 | 14 | 19 | 83 | 452 | 1368 | 2940 | 3437 | 3061 | 2155 | 1582 | 243 | 15357 | 100 |
| 8/15/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.6% | 2.7% | 9.5% | 17.5% | 22.8% | 20.8% | 13.9% | 10.2% | 1.7% | 0 | 7 | 3 | 8 | 29 | 97 | 432 | 1500 | 2761 | 3592 | 3272 | 2191 | 1601 | 261 | 15754 | 100 |
| Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.8% | 3.4% | 9.7% | 18.0% | 22.2% | 20.3% | 13.6% | 10.0% | 1.7% | 0 | 37 | 12 | 63 | 214 | 878 | 3710 | 10627 | 19647 | 24206 | 22087 | 14847 | 10851 | 1816 | 108995 | 100 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 0 | 37 | 12 | 63 | 214 | 878 | 3710 | 10627 | 19647 | 24206 | 22087 | 14847 | 10851 | 1816 | 1E+05 |
| % Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.8% | 3.4% | 9.7% | 18.0% | 22.2% | 20.3% | 13.6% | 10.0% | 1.7% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.1% | 4.5% | 14.3% | 32.3% | 54.5% | 74.8% | 88.4% | 98.3% | 100% | |
| Inverse Accum. % | ##### | ##### | ##### | 99.9% | 99.7% | 98.9% | 95.5% | 85.7% | 67.7% | 45.5% | 25.2% | 11.6% | 1.7% | 0.0% | |
| Average Speed | 100 KMH | | | | | | | | | | | | | | |



Site notes.

Hwy 1 between 1st Ave and Transfer Beach Blvd

SB

August 9, 2018 to August 15, 2018

Daily Speed Bin Percentages

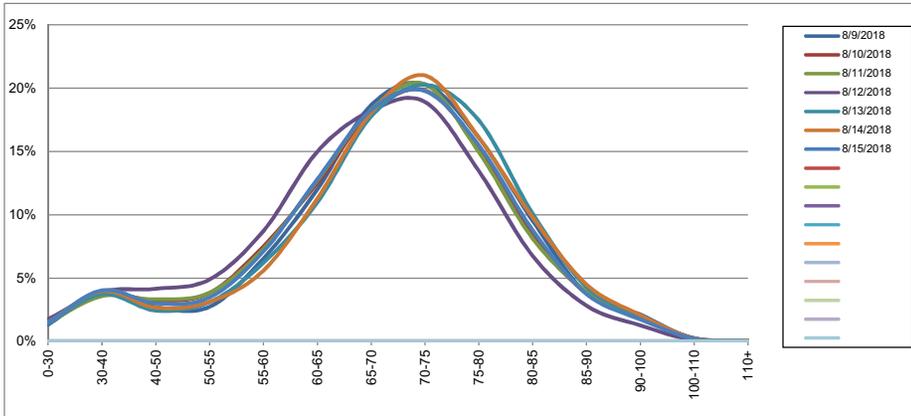
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|--------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ |
| 8/9/2018 | 1.3% | 4.0% | 2.7% | 2.7% | 6.5% | 12.0% | 18.7% | 20.3% | 16.1% | 9.5% | 3.8% | 2.1% | 0.2% | 0.0% |
| 8/10/2018 | 1.4% | 3.7% | 3.2% | 3.8% | 7.5% | 12.5% | 18.1% | 19.8% | 15.4% | 8.4% | 3.8% | 1.9% | 0.3% | 0.1% |
| 8/11/2018 | 1.5% | 3.6% | 3.3% | 3.8% | 7.3% | 12.7% | 18.3% | 20.3% | 15.0% | 8.1% | 3.9% | 1.9% | 0.2% | 0.0% |
| 8/12/2018 | 1.8% | 3.9% | 4.2% | 4.9% | 8.7% | 15.0% | 18.2% | 18.9% | 13.5% | 6.8% | 2.8% | 1.3% | 0.1% | 0.0% |
| 8/13/2018 | 1.4% | 3.7% | 2.4% | 3.1% | 6.2% | 11.0% | 17.8% | 20.3% | 17.5% | 10.1% | 4.3% | 2.0% | 0.2% | 0.0% |
| 8/14/2018 | 1.5% | 4.0% | 2.7% | 3.1% | 5.6% | 11.3% | 18.0% | 21.0% | 16.1% | 9.8% | 4.5% | 2.1% | 0.2% | 0.1% |
| 8/15/2018 | 1.5% | 4.0% | 3.0% | 3.5% | 7.1% | 12.8% | 18.3% | 19.8% | 15.5% | 8.8% | 3.8% | 1.7% | 0.2% | 0.0% |
| Total | 1.5% | 3.8% | 3.1% | 3.6% | 7.0% | 12.5% | 18.2% | 20.0% | 15.6% | 8.8% | 3.8% | 1.9% | 0.2% | 0.0% |

Daily Speed Bin Volumes

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total | Avg. Speed |
|--------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|--------|------------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | Volume | Speed |
| 8/9/2018 | 190 | 571 | 391 | 394 | 943 | 1729 | 2688 | 2926 | 2318 | 1374 | 546 | 305 | 28 | 1 | 14404 | 69 |
| 8/10/2018 | 218 | 562 | 485 | 576 | 1130 | 1883 | 2723 | 2981 | 2311 | 1271 | 572 | 289 | 38 | 8 | 15047 | 68 |
| 8/11/2018 | 197 | 475 | 442 | 511 | 971 | 1691 | 2434 | 2700 | 1990 | 1082 | 523 | 249 | 30 | 4 | 13299 | 68 |
| 8/12/2018 | 250 | 554 | 589 | 693 | 1236 | 2123 | 2581 | 2681 | 1908 | 959 | 400 | 180 | 13 | 3 | 14170 | 66 |
| 8/13/2018 | 197 | 516 | 336 | 428 | 857 | 1515 | 2454 | 2800 | 2413 | 1396 | 592 | 278 | 33 | 3 | 13818 | 69 |
| 8/14/2018 | 208 | 542 | 364 | 428 | 764 | 1541 | 2466 | 2871 | 2202 | 1339 | 616 | 285 | 33 | 10 | 13669 | 69 |
| 8/15/2018 | 211 | 572 | 426 | 493 | 1006 | 1815 | 2591 | 2804 | 2197 | 1247 | 532 | 247 | 31 | 5 | 14177 | 68 |
| Total | 1471 | 3792 | 3033 | 3523 | 6907 | 12297 | 17937 | 19763 | 15339 | 8668 | 3781 | 1833 | 206 | 34 | 98584 | 68 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|-------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | |
| Survey Total | 1471 | 3792 | 3033 | 3523 | 6907 | 12297 | 17937 | 19763 | 15339 | 8668 | 3781 | 1833 | 206 | 34 | 98584 |
| % Total | 1.5% | 3.8% | 3.1% | 3.6% | 7.0% | 12.5% | 18.2% | 20.0% | 15.6% | 8.8% | 3.8% | 1.9% | 0.2% | 0.0% | 100% |
| Accumulated % | 1.5% | 5.3% | 8.4% | 12.0% | 19.0% | 31.5% | 49.7% | 69.7% | 85.3% | 94.1% | 97.9% | 99.8% | 100.0% | 100% | |
| Inverse Accum. % | 98.5% | 94.7% | 91.6% | 88.0% | 81.0% | 68.5% | 50.3% | 30.3% | 14.7% | 5.9% | 2.1% | 0.2% | 0.0% | 0.0% | |
| Average Speed | 68 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 between 1st Ave and Transfer Beach Blvd

NB

August 9, 2018 to August 15, 2018

Daily Speed Bin Percentages

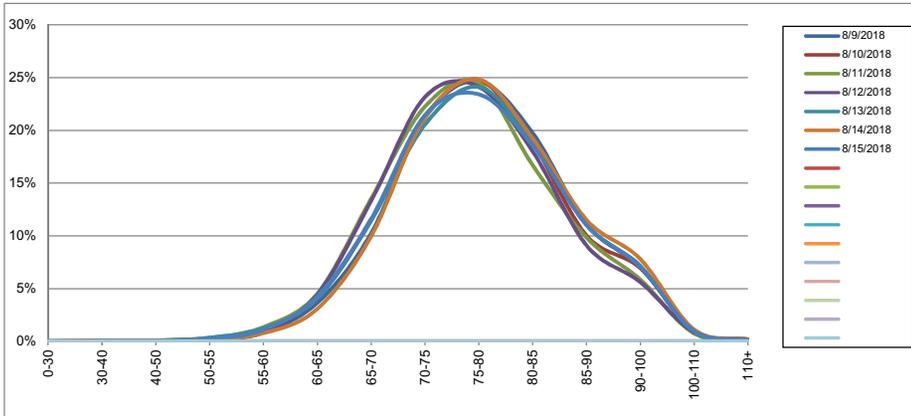
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|--------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ |
| 8/9/2018 | 0.0% | 0.0% | 0.1% | 0.2% | 0.9% | 3.7% | 10.2% | 21.2% | 24.7% | 19.8% | 11.1% | 7.0% | 1.0% | 0.1% |
| 8/10/2018 | 0.0% | 0.1% | 0.1% | 0.2% | 1.0% | 4.1% | 11.5% | 21.3% | 24.8% | 18.8% | 10.0% | 7.0% | 1.0% | 0.2% |
| 8/11/2018 | 0.0% | 0.1% | 0.1% | 0.3% | 1.4% | 4.5% | 13.5% | 22.3% | 24.5% | 16.7% | 9.8% | 5.9% | 0.7% | 0.1% |
| 8/12/2018 | 0.0% | 0.0% | 0.1% | 0.3% | 0.8% | 4.4% | 13.3% | 23.2% | 24.1% | 18.0% | 9.1% | 5.6% | 0.9% | 0.1% |
| 8/13/2018 | 0.0% | 0.0% | 0.1% | 0.3% | 1.3% | 4.1% | 11.4% | 20.5% | 24.1% | 18.8% | 11.0% | 7.2% | 0.9% | 0.2% |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.8% | 3.1% | 9.9% | 21.2% | 24.8% | 19.3% | 11.5% | 7.8% | 1.1% | 0.2% |
| 8/15/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 1.1% | 4.3% | 11.6% | 21.4% | 23.4% | 18.6% | 11.1% | 7.1% | 1.0% | 0.2% |
| Total | 0.0% | 0.0% | 0.1% | 0.3% | 1.0% | 4.0% | 11.6% | 21.6% | 24.4% | 18.6% | 10.5% | 6.8% | 0.9% | 0.2% |

Daily Speed Bin Volumes

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total | Avg. Speed |
|--------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|--------|------------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | Volume | Speed |
| 8/9/2018 | 1 | 4 | 11 | 33 | 125 | 504 | 1412 | 2924 | 3404 | 2726 | 1530 | 972 | 134 | 17 | 13797 | 78 |
| 8/10/2018 | 0 | 10 | 9 | 29 | 154 | 617 | 1725 | 3204 | 3722 | 2822 | 1509 | 1044 | 148 | 27 | 15020 | 78 |
| 8/11/2018 | 5 | 8 | 13 | 42 | 171 | 569 | 1704 | 2804 | 3088 | 2106 | 1241 | 739 | 94 | 15 | 12599 | 77 |
| 8/12/2018 | 1 | 6 | 9 | 32 | 103 | 542 | 1629 | 2836 | 2954 | 2206 | 1115 | 688 | 106 | 16 | 12243 | 77 |
| 8/13/2018 | 1 | 2 | 10 | 44 | 159 | 516 | 1456 | 2612 | 3067 | 2396 | 1401 | 911 | 119 | 24 | 12718 | 78 |
| 8/14/2018 | 0 | 3 | 5 | 26 | 100 | 395 | 1275 | 2715 | 3183 | 2469 | 1477 | 1001 | 144 | 24 | 12817 | 79 |
| 8/15/2018 | 1 | 4 | 6 | 33 | 146 | 565 | 1543 | 2850 | 3114 | 2473 | 1471 | 938 | 130 | 20 | 13294 | 78 |
| Total | 9 | 37 | 63 | 239 | 958 | 3708 | 10744 | 19945 | 22532 | 17198 | 9744 | 6293 | 875 | 143 | 92488 | 78 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|-------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | Total |
| Survey Total | 9 | 37 | 63 | 239 | 958 | 3708 | 10744 | 19945 | 22532 | 17198 | 9744 | 6293 | 875 | 143 | 92488 |
| % Total | 0.0% | 0.0% | 0.1% | 0.3% | 1.0% | 4.0% | 11.6% | 21.6% | 24.4% | 18.6% | 10.5% | 6.8% | 0.9% | 0.2% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.1% | 0.4% | 1.4% | 5.4% | 17.0% | 38.6% | 63.0% | 81.6% | 92.1% | 98.9% | 99.8% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 99.9% | 99.6% | 98.6% | 94.6% | 83.0% | 61.4% | 37.0% | 18.4% | 7.9% | 1.1% | 0.2% | 0.0% | |
| Average Speed | 78 KMH | | | | | | | | | | | | | | |

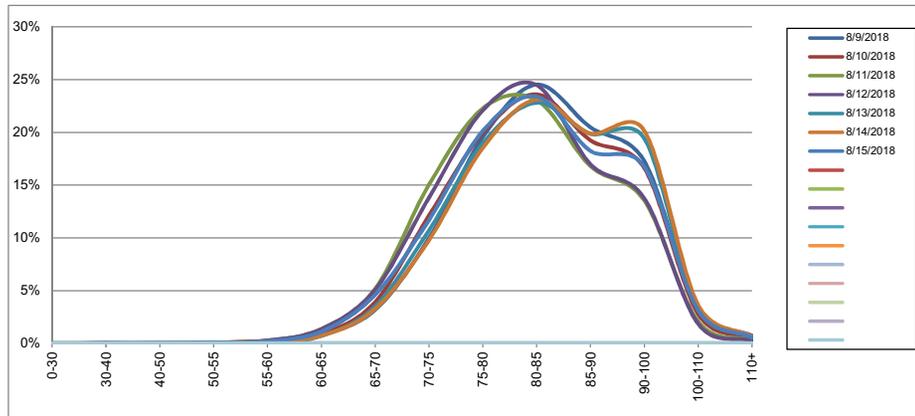


Site notes:

| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|-------|--------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | Speed |
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | | |
| 8/9/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.8% | 3.2% | 10.0% | 19.6% | 24.5% | 20.5% | 17.3% | 3.2% | 0.7% | 1 | 3 | 4 | 4 | 22 | 137 | 515 | 1616 | 3173 | 3980 | 3322 | 2804 | 524 | 121 | 16226 | 84 |
| 8/10/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 0.9% | 3.9% | 12.1% | 19.9% | 23.6% | 19.2% | 16.6% | 2.8% | 0.4% | 0 | 4 | 4 | 14 | 46 | 151 | 647 | 2004 | 3300 | 3906 | 3184 | 2749 | 461 | 73 | 16543 | 83 |
| 8/11/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.4% | 5.2% | 15.0% | 22.3% | 23.1% | 16.8% | 13.5% | 2.1% | 0.3% | 0 | 3 | 0 | 13 | 39 | 200 | 756 | 2200 | 3261 | 3376 | 2460 | 1982 | 306 | 40 | 14636 | 82 |
| 8/12/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 1.4% | 5.1% | 13.8% | 22.1% | 24.5% | 17.0% | 13.8% | 1.9% | 0.2% | 1 | 4 | 2 | 7 | 42 | 208 | 782 | 2123 | 3400 | 3770 | 2613 | 2117 | 286 | 38 | 15393 | 82 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.7% | 3.5% | 10.7% | 19.0% | 22.8% | 19.9% | 19.4% | 3.3% | 0.6% | 1 | 3 | 1 | 2 | 15 | 107 | 535 | 1632 | 2889 | 3475 | 3025 | 2959 | 502 | 86 | 15232 | 84 |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.7% | 3.3% | 9.8% | 18.5% | 23.1% | 19.9% | 20.2% | 3.7% | 0.6% | 0 | 1 | 1 | 4 | 27 | 111 | 496 | 1483 | 2809 | 3506 | 3014 | 3059 | 555 | 98 | 15164 | 84 |
| 8/15/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 1.1% | 4.6% | 11.7% | 20.1% | 23.4% | 18.2% | 16.7% | 3.1% | 0.6% | 0 | 5 | 6 | 15 | 34 | 176 | 730 | 1853 | 3193 | 3710 | 2893 | 2654 | 499 | 89 | 15857 | 83 |
| Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 1.0% | 4.1% | 11.8% | 20.2% | 23.6% | 18.8% | 16.8% | 2.9% | 0.5% | 3 | 23 | 18 | 59 | 225 | 1090 | 4461 | 12911 | 22025 | 25723 | 20511 | 18324 | 3133 | 545 | 109051 | 83 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|--------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | |
| Survey Total | 3 | 23 | 18 | 59 | 225 | 1090 | 4461 | 12911 | 22025 | 25723 | 20511 | 18324 | 3133 | 545 | 109051 |
| % Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 1.0% | 4.1% | 11.8% | 20.2% | 23.6% | 18.8% | 16.8% | 2.9% | 0.5% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.3% | 5.4% | 17.2% | 37.4% | 61.0% | 79.8% | 96.6% | 99.5% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 100.0% | 99.9% | 99.7% | 98.7% | 94.6% | 82.8% | 62.6% | 39.0% | 20.2% | 3.4% | 0.5% | 0.0% | |
| Average Speed | 83 KMH | | | | | | | | | | | | | | |



Site notes:

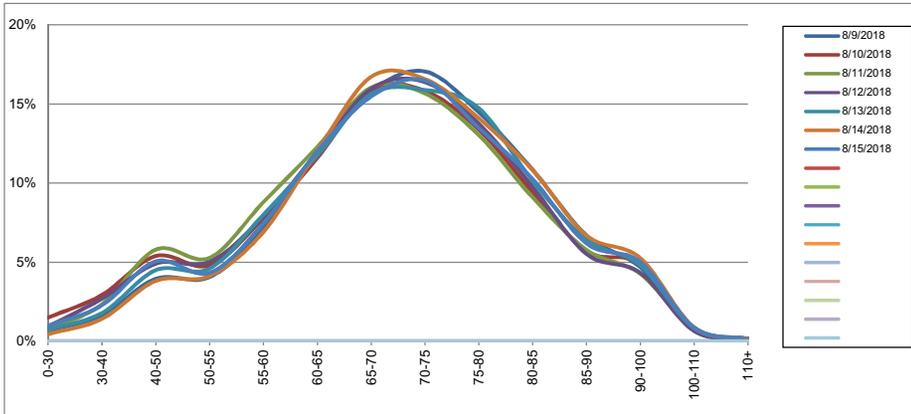
Daily Speed Bin Percentages

Daily Speed Bin Volumes

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total | Avg. |
|--------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|--------|-------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | Volume | Speed |
| 8/9/2018 | 0.7% | 1.7% | 4.0% | 4.1% | 7.1% | 12.0% | 15.8% | 17.1% | 14.5% | 10.8% | 6.7% | 4.7% | 0.8% | 0.1% | 104 | 255 | 610 | 627 | 1097 | 1856 | 2438 | 2632 | 2235 | 1673 | 1033 | 722 | 125 | 22 | 15429 | 71 |
| 8/10/2018 | 1.5% | 2.9% | 5.4% | 4.8% | 7.8% | 11.6% | 15.9% | 15.8% | 13.4% | 9.4% | 5.7% | 4.9% | 0.7% | 0.1% | 253 | 494 | 910 | 810 | 1311 | 1954 | 2676 | 2668 | 2255 | 1591 | 960 | 826 | 124 | 19 | 16851 | 69 |
| 8/11/2018 | 0.7% | 2.3% | 5.8% | 5.3% | 8.8% | 12.3% | 16.0% | 15.7% | 13.0% | 9.1% | 5.8% | 4.3% | 0.8% | 0.1% | 101 | 332 | 822 | 748 | 1247 | 1741 | 2273 | 2221 | 1848 | 1290 | 820 | 605 | 111 | 14 | 14173 | 69 |
| 8/12/2018 | 0.9% | 2.7% | 4.9% | 5.0% | 7.9% | 11.9% | 16.0% | 16.4% | 13.8% | 9.8% | 5.5% | 4.3% | 0.7% | 0.2% | 126 | 360 | 656 | 672 | 1053 | 1594 | 2131 | 2188 | 1837 | 1304 | 738 | 579 | 88 | 25 | 13351 | 69 |
| 8/13/2018 | 0.7% | 1.8% | 4.5% | 4.6% | 8.0% | 11.7% | 15.6% | 15.9% | 14.7% | 10.1% | 6.4% | 4.8% | 0.8% | 0.2% | 106 | 256 | 643 | 658 | 1144 | 1676 | 2234 | 2271 | 2106 | 1450 | 919 | 686 | 120 | 22 | 14291 | 70 |
| 8/14/2018 | 0.5% | 1.4% | 3.8% | 4.1% | 6.9% | 12.0% | 16.7% | 16.6% | 14.1% | 10.8% | 6.7% | 5.3% | 0.9% | 0.1% | 66 | 205 | 552 | 597 | 999 | 1736 | 2414 | 2394 | 2036 | 1563 | 967 | 761 | 129 | 20 | 14439 | 71 |
| 8/15/2018 | 1.0% | 2.3% | 5.1% | 4.3% | 7.4% | 12.0% | 15.5% | 16.5% | 13.5% | 10.3% | 6.2% | 5.0% | 0.9% | 0.1% | 150 | 346 | 768 | 658 | 1130 | 1822 | 2349 | 2502 | 2048 | 1558 | 940 | 762 | 133 | 16 | 15182 | 70 |
| Total | 0.9% | 2.2% | 4.8% | 4.6% | 7.7% | 11.9% | 15.9% | 16.3% | 13.9% | 10.1% | 6.1% | 4.8% | 0.8% | 0.1% | 906 | 2248 | 4961 | 4770 | 7981 | 12379 | 16515 | 16876 | 14365 | 10429 | 6377 | 4941 | 830 | 138 | 103716 | 70 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|------|--------|
| Bin Speeds | 0-30 | 30-40 | 40-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-100 | 100-110 | 110+ | Total |
| Survey Total | 906 | 2248 | 4961 | 4770 | 7981 | 12379 | 16515 | 16876 | 14365 | 10429 | 6377 | 4941 | 830 | 138 | 103716 |
| % Total | 0.9% | 2.2% | 4.8% | 4.6% | 7.7% | 11.9% | 15.9% | 16.3% | 13.9% | 10.1% | 6.1% | 4.8% | 0.8% | 0.1% | 100% |
| Accumulated % | 0.9% | 3.0% | 7.8% | 12.4% | 20.1% | 32.1% | 48.0% | 64.2% | 78.1% | 88.2% | 94.3% | 99.1% | 99.9% | 100% | |
| Inverse Accum. % | 99.1% | 97.0% | 92.2% | 87.6% | 79.9% | 67.9% | 52.0% | 35.8% | 21.9% | 11.8% | 5.7% | 0.9% | 0.1% | 0.0% | |
| Average Speed | 70 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 between N Davis Rd and S Davis Rd

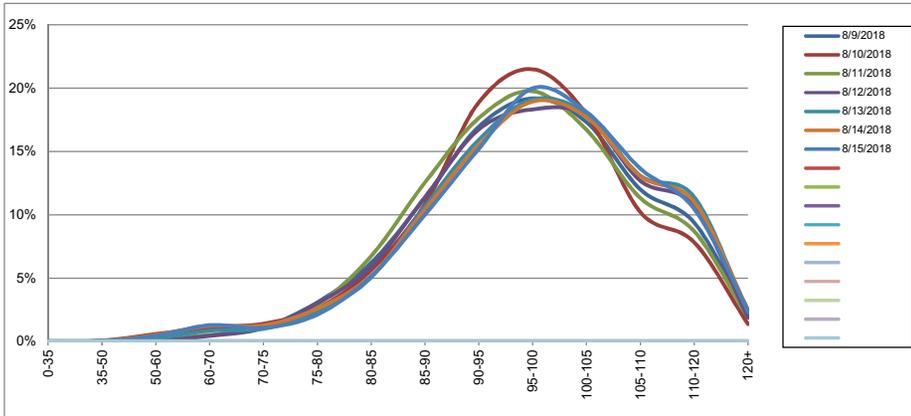
SB

August 9, 2018 to August 15, 2018

| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------|--------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | Speed |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | | |
| 8/9/2018 | 0.0% | 0.0% | 0.3% | 1.0% | 1.2% | 3.1% | 6.2% | 11.3% | 17.0% | 19.2% | 17.3% | 12.0% | 9.4% | 2.0% | 0 | 5 | 41 | 130 | 155 | 405 | 815 | 1488 | 2230 | 2524 | 2278 | 1579 | 1234 | 265 | 13149 | 98 |
| 8/10/2018 | 0.0% | 0.1% | 0.6% | 1.1% | 1.4% | 2.6% | 5.6% | 10.8% | 18.9% | 21.5% | 17.9% | 10.2% | 7.8% | 1.4% | 1 | 8 | 80 | 155 | 193 | 365 | 783 | 1508 | 2625 | 2989 | 2495 | 1420 | 1089 | 191 | 13902 | 97 |
| 8/11/2018 | 0.0% | 0.0% | 0.2% | 0.5% | 1.1% | 2.9% | 6.7% | 12.5% | 17.6% | 19.8% | 16.7% | 11.3% | 8.7% | 1.9% | 0 | 1 | 19 | 63 | 133 | 353 | 822 | 1532 | 2155 | 2414 | 2042 | 1383 | 1064 | 232 | 12213 | 97 |
| 8/12/2018 | 0.0% | 0.0% | 0.1% | 0.4% | 1.1% | 3.0% | 5.9% | 11.4% | 16.7% | 18.3% | 17.8% | 12.7% | 10.7% | 1.9% | 1 | 2 | 8 | 57 | 135 | 385 | 757 | 1462 | 2149 | 2352 | 2286 | 1629 | 1367 | 240 | 12830 | 98 |
| 8/13/2018 | 0.0% | 0.0% | 0.3% | 0.8% | 1.0% | 2.3% | 5.0% | 10.7% | 15.9% | 19.1% | 18.0% | 13.1% | 11.4% | 2.3% | 2 | 3 | 33 | 108 | 127 | 294 | 642 | 1355 | 2026 | 2432 | 2284 | 1667 | 1451 | 297 | 12721 | 99 |
| 8/14/2018 | 0.0% | 0.0% | 0.5% | 1.2% | 1.3% | 2.6% | 5.2% | 10.4% | 15.5% | 18.9% | 17.7% | 13.1% | 11.0% | 2.5% | 0 | 5 | 64 | 155 | 160 | 329 | 657 | 1316 | 1965 | 2399 | 2242 | 1654 | 1396 | 318 | 12660 | 98 |
| 8/15/2018 | 0.0% | 0.0% | 0.4% | 1.3% | 1.1% | 2.1% | 5.1% | 10.0% | 15.2% | 20.0% | 18.1% | 13.7% | 10.5% | 2.5% | 0 | 4 | 58 | 168 | 140 | 277 | 672 | 1310 | 1992 | 2619 | 2375 | 1788 | 1371 | 324 | 13098 | 99 |
| Total | 0.0% | 0.0% | 0.3% | 0.9% | 1.2% | 2.7% | 5.7% | 11.0% | 16.7% | 19.6% | 17.7% | 12.3% | 9.9% | 2.1% | 4 | 28 | 303 | 836 | 1043 | 2408 | 5148 | 9971 | 15142 | 17729 | 16002 | 11120 | 8972 | 1867 | 90573 | 98 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 4 | 28 | 303 | 836 | 1043 | 2408 | 5148 | 9971 | 15142 | 17729 | 16002 | 11120 | 8972 | 1867 | 90573 |
| % Total | 0.0% | 0.0% | 0.3% | 0.9% | 1.2% | 2.7% | 5.7% | 11.0% | 16.7% | 19.6% | 17.7% | 12.3% | 9.9% | 2.1% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.4% | 1.3% | 2.4% | 5.1% | 10.8% | 21.8% | 38.5% | 58.1% | 75.8% | 88.0% | 97.9% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 99.6% | 98.7% | 97.6% | 94.9% | 89.2% | 78.2% | 61.5% | 41.9% | 24.2% | 12.0% | 2.1% | 0.0% | |
| Average Speed | 98 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 between N Davis Rd and S Davis Rd

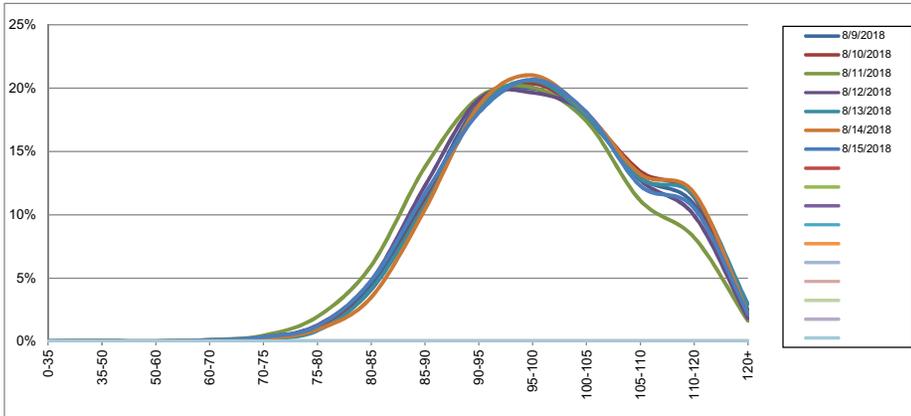
NB

August 9, 2018 to August 15, 2018

| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. Speed | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------|------------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | Speed |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | | |
| 8/9/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.3% | 4.4% | 11.3% | 18.7% | 20.0% | 17.6% | 12.9% | 10.8% | 2.5% | 3 | 4 | 1 | 14 | 33 | 165 | 579 | 1473 | 2442 | 2604 | 2296 | 1688 | 1411 | 324 | 13037 | 99 |
| 8/10/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.1% | 4.1% | 11.0% | 18.2% | 20.4% | 17.8% | 13.4% | 11.4% | 2.2% | 1 | 4 | 0 | 10 | 38 | 163 | 583 | 1564 | 2599 | 2905 | 2543 | 1917 | 1626 | 320 | 14273 | 99 |
| 8/11/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.5% | 1.9% | 6.0% | 13.8% | 19.3% | 20.1% | 17.4% | 11.1% | 8.2% | 1.6% | 1 | 4 | 1 | 14 | 56 | 236 | 723 | 1667 | 2332 | 2428 | 2106 | 1347 | 994 | 196 | 12105 | 98 |
| 8/12/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.3% | 4.8% | 12.3% | 19.1% | 19.6% | 18.0% | 12.7% | 9.9% | 1.8% | 1 | 2 | 0 | 6 | 38 | 143 | 542 | 1388 | 2159 | 2220 | 2032 | 1439 | 1124 | 206 | 11300 | 99 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.8% | 4.1% | 10.8% | 18.3% | 20.6% | 17.8% | 12.9% | 11.5% | 2.9% | 0 | 2 | 1 | 10 | 24 | 101 | 492 | 1292 | 2201 | 2472 | 2133 | 1542 | 1378 | 352 | 12000 | 100 |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.9% | 3.5% | 10.4% | 18.6% | 21.0% | 18.0% | 13.2% | 11.7% | 2.2% | 0 | 1 | 0 | 12 | 25 | 113 | 419 | 1259 | 2251 | 2540 | 2179 | 1596 | 1417 | 268 | 12080 | 100 |
| 8/15/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.2% | 4.8% | 11.7% | 18.1% | 20.7% | 18.1% | 12.3% | 10.5% | 2.2% | 1 | 5 | 0 | 13 | 44 | 152 | 606 | 1477 | 2286 | 2618 | 2291 | 1556 | 1332 | 276 | 12657 | 99 |
| Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.2% | 4.5% | 11.6% | 18.6% | 20.3% | 17.8% | 12.7% | 10.6% | 2.2% | 7 | 22 | 3 | 79 | 258 | 1073 | 3944 | 10120 | 16270 | 17787 | 15580 | 11085 | 9282 | 1942 | 87452 | 99 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 7 | 22 | 3 | 79 | 258 | 1073 | 3944 | 10120 | 16270 | 17787 | 15580 | 11085 | 9282 | 1942 | 87452 |
| % Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.2% | 4.5% | 11.6% | 18.6% | 20.3% | 17.8% | 12.7% | 10.6% | 2.2% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.0% | 0.1% | 0.4% | 1.6% | 6.2% | 17.7% | 36.3% | 56.7% | 74.5% | 87.2% | 97.8% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 100.0% | 99.9% | 99.6% | 98.4% | 93.8% | 82.3% | 63.7% | 43.3% | 25.5% | 12.8% | 2.2% | 0.0% | |
| Average Speed | 99 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 400m south of S Davis Rd

SB

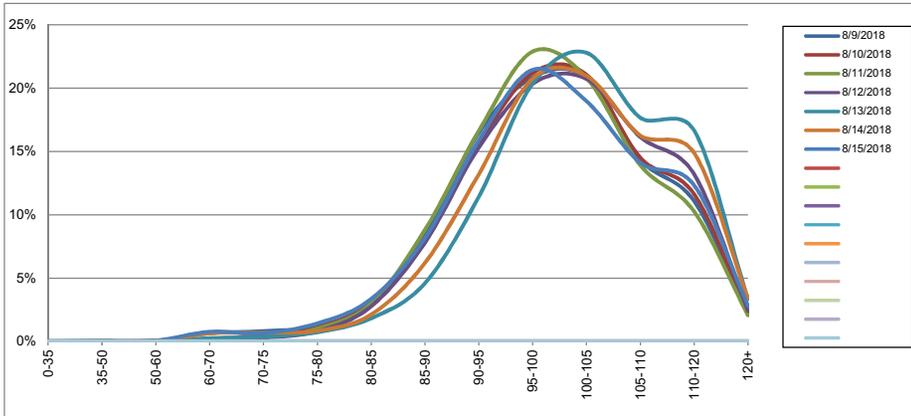
August 9, 2018 to August 15, 2018

Daily Speed Bin Percentages

| Bin # | Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. Speed |
|--------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|--------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | Volume | Speed |
| 8/9/2018 | 0.0% | 0.1% | 0.0% | 0.6% | 0.8% | 1.2% | 3.0% | 8.4% | 16.5% | 20.9% | 20.9% | 14.4% | 11.1% | 2.2% | 1 | 7 | 6 | 88 | 111 | 161 | 411 | 1138 | 2241 | 2836 | 2835 | 1954 | 1507 | 301 | 13597 | 100 |
| 8/10/2018 | 0.0% | 0.0% | 0.0% | 0.7% | 0.6% | 1.1% | 3.2% | 8.2% | 15.6% | 21.2% | 21.1% | 14.5% | 11.6% | 2.2% | 0 | 0 | 4 | 102 | 90 | 154 | 455 | 1175 | 2247 | 3052 | 3030 | 2089 | 1673 | 316 | 14387 | 100 |
| 8/11/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.3% | 1.0% | 3.0% | 8.8% | 16.6% | 22.9% | 20.8% | 13.9% | 10.3% | 2.1% | 0 | 1 | 3 | 29 | 43 | 130 | 383 | 1124 | 2122 | 2921 | 2656 | 1776 | 1309 | 263 | 12760 | 100 |
| 8/12/2018 | 0.0% | 0.0% | 0.1% | 0.1% | 0.3% | 0.8% | 2.8% | 7.8% | 15.3% | 20.4% | 20.7% | 16.2% | 13.2% | 2.4% | 0 | 0 | 7 | 17 | 40 | 108 | 372 | 1049 | 2062 | 2740 | 2791 | 2174 | 1777 | 324 | 13461 | 101 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.2% | 0.4% | 0.7% | 1.8% | 4.6% | 11.4% | 20.4% | 22.8% | 17.7% | 16.7% | 3.3% | 0 | 0 | 1 | 33 | 49 | 96 | 241 | 609 | 1515 | 2699 | 3023 | 2343 | 2209 | 443 | 13261 | 103 |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.6% | 0.7% | 0.8% | 2.1% | 6.2% | 13.2% | 20.8% | 21.0% | 16.3% | 14.9% | 3.4% | 1 | 1 | 2 | 83 | 89 | 108 | 274 | 802 | 1709 | 2688 | 2716 | 2107 | 1927 | 443 | 12950 | 102 |
| 8/15/2018 | 0.0% | 0.0% | 0.1% | 0.8% | 0.7% | 1.4% | 3.3% | 8.1% | 15.9% | 21.5% | 19.0% | 14.1% | 12.3% | 2.8% | 0 | 0 | 8 | 102 | 89 | 192 | 451 | 1097 | 2139 | 2891 | 2557 | 1902 | 1662 | 384 | 13474 | 100 |
| Total | 0.0% | 0.0% | 0.0% | 0.5% | 0.5% | 1.0% | 2.8% | 7.4% | 14.9% | 21.1% | 20.9% | 15.3% | 12.8% | 2.6% | 2 | 9 | 31 | 454 | 511 | 949 | 2587 | 6994 | 14035 | 19827 | 19608 | 14345 | 12064 | 2474 | 93890 | 101 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|---------|--------|--------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | Total |
| Survey Total | 2 | 9 | 31 | 454 | 511 | 949 | 2587 | 6994 | 14035 | 19827 | 19608 | 14345 | 12064 | 2474 | 93890 |
| % Total | 0.0% | 0.0% | 0.0% | 0.5% | 0.5% | 1.0% | 2.8% | 7.4% | 14.9% | 21.1% | 20.9% | 15.3% | 12.8% | 2.6% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.0% | 0.5% | 1.1% | 2.1% | 4.8% | 12.3% | 27.2% | 48.4% | 69.2% | 84.5% | 97.4% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 100.0% | 99.5% | 98.9% | 97.9% | 95.2% | 87.7% | 72.8% | 51.6% | 30.8% | 15.5% | 2.6% | 0.0% | |
| Average Speed | 101 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 400m south of S Davis Rd

NB

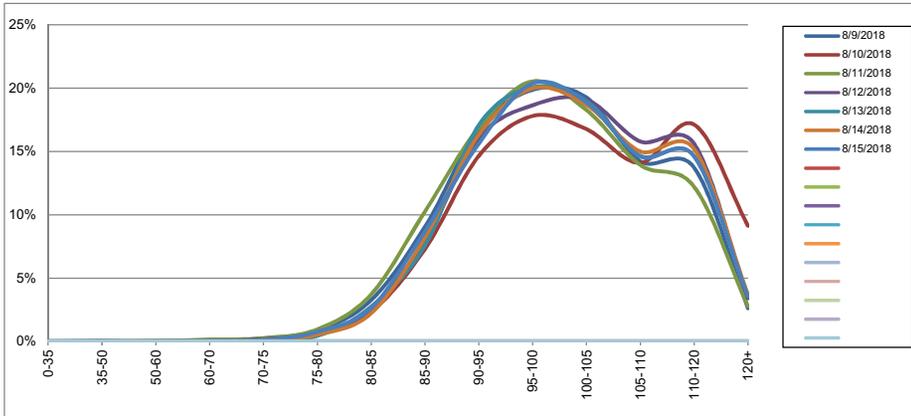
August 9, 2018 to August 15, 2018

Daily Speed Bin Percentages

| Bin # | Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. Speed |
|--------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|--------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | Volume | Speed |
| 8/9/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.9% | 3.3% | 9.0% | 16.8% | 19.9% | 19.3% | 14.2% | 13.7% | 2.6% | 2 | 2 | 3 | 11 | 31 | 117 | 439 | 1218 | 2261 | 2681 | 2598 | 1919 | 1852 | 353 | 13487 | 101 |
| 8/10/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.6% | 2.3% | 7.3% | 14.6% | 17.8% | 16.8% | 14.1% | 17.1% | 9.1% | 0 | 3 | 0 | 7 | 24 | 87 | 351 | 1097 | 2205 | 2681 | 2524 | 2123 | 2579 | 1375 | 15056 | 104 |
| 8/11/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 1.0% | 3.7% | 10.3% | 16.9% | 20.5% | 18.3% | 13.9% | 12.2% | 2.8% | 0 | 1 | 6 | 18 | 33 | 119 | 462 | 1280 | 2107 | 2565 | 2282 | 1739 | 1525 | 347 | 12484 | 100 |
| 8/12/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.6% | 2.6% | 8.0% | 16.1% | 18.7% | 19.1% | 15.8% | 15.6% | 3.4% | 0 | 0 | 0 | 4 | 21 | 75 | 297 | 927 | 1865 | 2167 | 2219 | 1835 | 1813 | 396 | 11619 | 102 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.4% | 2.7% | 7.6% | 17.1% | 20.1% | 19.0% | 14.7% | 14.6% | 3.6% | 0 | 3 | 1 | 2 | 15 | 54 | 340 | 937 | 2114 | 2485 | 2352 | 1816 | 1810 | 451 | 12380 | 101 |
| 8/14/2018 | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.5% | 2.2% | 8.2% | 16.3% | 20.0% | 18.7% | 15.0% | 15.2% | 3.7% | 0 | 2 | 0 | 5 | 13 | 66 | 277 | 1023 | 2037 | 2494 | 2330 | 1872 | 1896 | 462 | 12477 | 102 |
| 8/15/2018 | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.8% | 2.7% | 8.7% | 15.6% | 20.4% | 18.9% | 14.6% | 14.6% | 3.6% | 2 | 4 | 1 | 7 | 15 | 99 | 347 | 1137 | 2046 | 2669 | 2472 | 1914 | 1915 | 466 | 13094 | 101 |
| Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.7% | 2.8% | 8.4% | 16.2% | 19.6% | 18.5% | 14.6% | 14.8% | 4.2% | 4 | 15 | 11 | 54 | 152 | 617 | 2513 | 7619 | 14635 | 17742 | 16777 | 13218 | 13390 | 3850 | 90597 | 102 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|---------|--------|--------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 4 | 15 | 11 | 54 | 152 | 617 | 2513 | 7619 | 14635 | 17742 | 16777 | 13218 | 13390 | 3850 | 90597 |
| % Total | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.7% | 2.8% | 8.4% | 16.2% | 19.6% | 18.5% | 14.6% | 14.8% | 4.2% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 0.9% | 3.7% | 12.1% | 28.3% | 47.9% | 66.4% | 81.0% | 95.8% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 100.0% | 99.9% | 99.7% | 99.1% | 96.3% | 87.9% | 71.7% | 52.1% | 33.6% | 19.0% | 4.2% | 0.0% | |
| Average Speed | 102 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 400m south of Thicke Rd

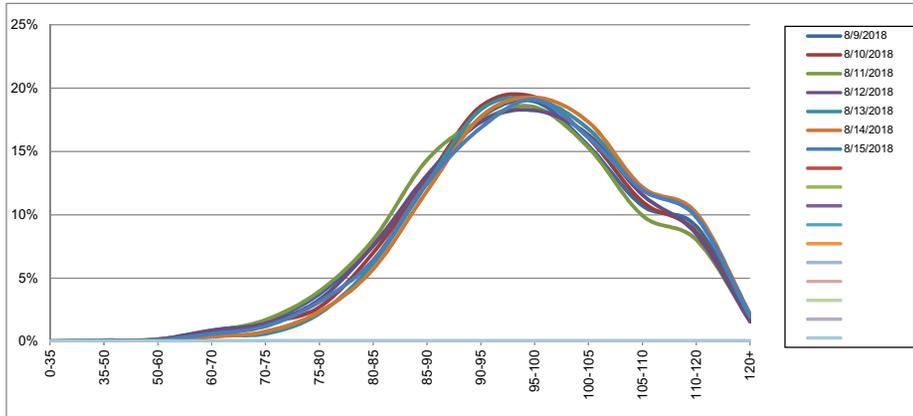
SB

August 9, 2018 to August 15, 2018

| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. Speed | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------|------------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | Speed |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | | |
| 8/9/2018 | 0.0% | 0.1% | 0.2% | 0.9% | 1.6% | 3.7% | 7.6% | 12.4% | 17.7% | 19.0% | 15.4% | 10.7% | 9.1% | 1.7% | 1 | 12 | 20 | 112 | 204 | 486 | 985 | 1621 | 2301 | 2469 | 2012 | 1398 | 1186 | 222 | 13029 | 97 |
| 8/10/2018 | 0.0% | 0.0% | 0.1% | 0.7% | 1.5% | 2.7% | 7.0% | 12.8% | 18.6% | 19.3% | 16.1% | 11.0% | 8.7% | 1.6% | 0 | 1 | 15 | 94 | 202 | 368 | 954 | 1748 | 2534 | 2633 | 2194 | 1507 | 1182 | 213 | 13645 | 97 |
| 8/11/2018 | 0.0% | 0.1% | 0.2% | 0.8% | 1.7% | 4.0% | 8.0% | 14.3% | 17.4% | 18.5% | 15.3% | 9.9% | 8.0% | 1.7% | 0 | 7 | 22 | 96 | 204 | 476 | 963 | 1719 | 2093 | 2221 | 1836 | 1193 | 965 | 201 | 11996 | 96 |
| 8/12/2018 | 0.0% | 0.0% | 0.1% | 0.9% | 1.4% | 3.3% | 7.6% | 13.1% | 17.3% | 18.3% | 16.3% | 11.6% | 8.5% | 1.6% | 0 | 5 | 18 | 109 | 179 | 414 | 950 | 1647 | 2178 | 2294 | 2050 | 1457 | 1067 | 200 | 12568 | 97 |
| 8/13/2018 | 0.0% | 0.0% | 0.0% | 0.5% | 0.6% | 2.2% | 6.1% | 12.5% | 18.3% | 19.1% | 16.8% | 12.1% | 9.8% | 2.0% | 0 | 0 | 3 | 62 | 75 | 275 | 770 | 1562 | 2293 | 2396 | 2103 | 1511 | 1231 | 247 | 12528 | 98 |
| 8/14/2018 | 0.0% | 0.0% | 0.1% | 0.4% | 0.8% | 2.3% | 5.7% | 11.9% | 17.7% | 19.3% | 17.3% | 12.2% | 10.2% | 2.2% | 0 | 0 | 7 | 44 | 95 | 285 | 697 | 1451 | 2171 | 2357 | 2120 | 1491 | 1243 | 270 | 12231 | 98 |
| 8/15/2018 | 0.0% | 0.0% | 0.1% | 0.6% | 1.2% | 3.1% | 6.4% | 12.5% | 16.9% | 19.1% | 16.1% | 12.0% | 9.9% | 2.1% | 0 | 6 | 13 | 75 | 152 | 397 | 817 | 1594 | 2150 | 2433 | 2051 | 1525 | 1258 | 270 | 12741 | 98 |
| Total | 0.0% | 0.0% | 0.1% | 0.7% | 1.3% | 3.0% | 6.9% | 12.8% | 17.7% | 18.9% | 16.2% | 11.4% | 9.2% | 1.8% | 1 | 31 | 98 | 592 | 1111 | 2701 | 6136 | 11342 | 15720 | 16803 | 14366 | 10082 | 8132 | 1623 | 88738 | 97 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 1 | 31 | 98 | 592 | 1111 | 2701 | 6136 | 11342 | 15720 | 16803 | 14366 | 10082 | 8132 | 1623 | 88738 |
| % Total | 0.0% | 0.0% | 0.1% | 0.7% | 1.3% | 3.0% | 6.9% | 12.8% | 17.7% | 18.9% | 16.2% | 11.4% | 9.2% | 1.8% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.1% | 0.8% | 2.1% | 5.1% | 12.0% | 24.8% | 42.5% | 61.5% | 77.6% | 89.0% | 98.2% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 99.9% | 99.2% | 97.9% | 94.9% | 88.0% | 75.2% | 57.5% | 38.5% | 22.4% | 11.0% | 1.8% | 0.0% | |
| Average Speed | 97 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 400m south of Thicke Rd

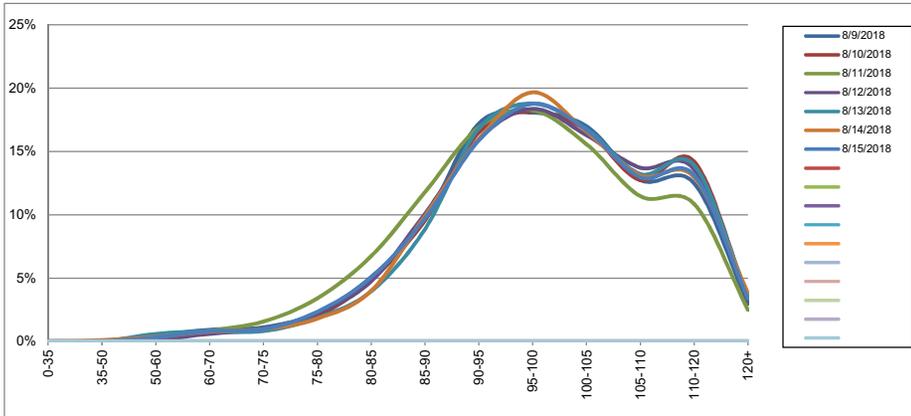
NB

August 9, 2018 to August 15, 2018

| Daily Speed Bin Percentages | | | | | | | | | | | | | | Daily Speed Bin Volumes | | | | | | | | | | | | | | Total | Avg. | |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-------|--------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume | Speed |
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | | |
| 8/9/2018 | 0.0% | 0.0% | 0.5% | 0.9% | 1.1% | 2.2% | 5.1% | 9.6% | 17.2% | 18.1% | 17.0% | 12.8% | 12.5% | 3.0% | 2 | 3 | 66 | 126 | 152 | 305 | 696 | 1316 | 2350 | 2467 | 2322 | 1743 | 1706 | 406 | 13660 | 99 |
| 8/10/2018 | 0.0% | 0.0% | 0.3% | 0.8% | 0.9% | 2.0% | 4.8% | 9.6% | 16.5% | 18.2% | 16.7% | 12.7% | 14.2% | 3.4% | 1 | 2 | 37 | 114 | 131 | 294 | 710 | 1403 | 2422 | 2668 | 2449 | 1872 | 2087 | 500 | 14690 | 100 |
| 8/11/2018 | 0.0% | 0.0% | 0.1% | 0.8% | 1.6% | 3.4% | 6.7% | 11.8% | 16.9% | 18.3% | 15.6% | 11.5% | 10.9% | 2.5% | 1 | 0 | 15 | 104 | 195 | 423 | 838 | 1467 | 2106 | 2274 | 1941 | 1429 | 1352 | 310 | 12455 | 98 |
| 8/12/2018 | 0.0% | 0.0% | 0.1% | 0.6% | 1.0% | 2.2% | 4.7% | 10.1% | 16.0% | 18.4% | 16.3% | 13.7% | 13.6% | 3.2% | 0 | 4 | 16 | 69 | 114 | 258 | 550 | 1168 | 1851 | 2128 | 1887 | 1589 | 1574 | 374 | 11582 | 100 |
| 8/13/2018 | 0.0% | 0.0% | 0.6% | 0.8% | 0.8% | 1.9% | 4.0% | 8.9% | 16.8% | 18.8% | 16.8% | 13.2% | 13.9% | 3.6% | 0 | 2 | 74 | 102 | 101 | 232 | 492 | 1103 | 2092 | 2339 | 2090 | 1647 | 1732 | 444 | 12450 | 100 |
| 8/14/2018 | 0.0% | 0.1% | 0.4% | 0.8% | 1.0% | 1.8% | 4.0% | 9.9% | 16.0% | 19.7% | 16.6% | 13.1% | 13.0% | 3.8% | 0 | 12 | 45 | 97 | 121 | 225 | 499 | 1242 | 2000 | 2464 | 2075 | 1641 | 1625 | 479 | 12525 | 100 |
| 8/15/2018 | 0.0% | 0.0% | 0.3% | 0.8% | 1.0% | 2.3% | 5.0% | 9.7% | 15.9% | 18.8% | 16.7% | 13.0% | 13.1% | 3.4% | 1 | 0 | 42 | 108 | 127 | 308 | 664 | 1275 | 2087 | 2469 | 2197 | 1704 | 1727 | 445 | 13154 | 99 |
| Total | 0.0% | 0.0% | 0.3% | 0.8% | 1.0% | 2.3% | 4.9% | 9.9% | 16.5% | 18.6% | 16.5% | 12.8% | 13.0% | 3.3% | 5 | 23 | 295 | 720 | 941 | 2045 | 4449 | 8974 | 14908 | 16809 | 14961 | 11625 | 11803 | 2958 | 90516 | 99 |

Speed Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
|-------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|------|-------|
| Bin Speeds | 0-35 | 35-50 | 50-60 | 60-70 | 70-75 | 75-80 | 80-85 | 85-90 | 90-95 | 95-100 | 100-105 | 105-110 | 110-120 | 120+ | |
| Survey Total | 5 | 23 | 295 | 720 | 941 | 2045 | 4449 | 8974 | 14908 | 16809 | 14961 | 11625 | 11803 | 2958 | 90516 |
| % Total | 0.0% | 0.0% | 0.3% | 0.8% | 1.0% | 2.3% | 4.9% | 9.9% | 16.5% | 18.6% | 16.5% | 12.8% | 13.0% | 3.3% | 100% |
| Accumulated % | 0.0% | 0.0% | 0.4% | 1.2% | 2.2% | 4.5% | 9.4% | 19.3% | 35.8% | 54.3% | 70.8% | 83.7% | 96.7% | 100% | |
| Inverse Accum. % | 100.0% | 100.0% | 99.6% | 98.8% | 97.8% | 95.5% | 90.6% | 80.7% | 64.2% | 45.7% | 29.2% | 16.3% | 3.3% | 0.0% | |
| Average Speed | 99 KMH | | | | | | | | | | | | | | |



Site notes:

Hwy 1 north of Grouhel Rd

SB

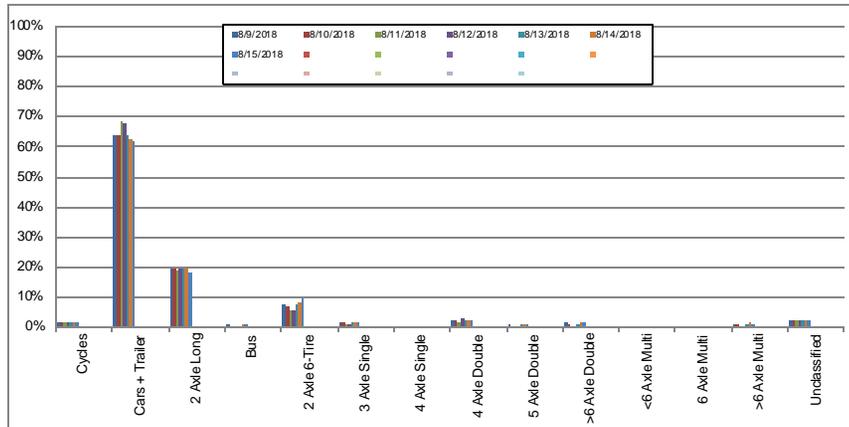
August 9, 2018 to August 15, 2018



| Daily Class Bin Percentages | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | |
|-----------------------------|---------|----------|-----------|------|-------------|------------|------------|---------|---------|------------|------------|------------|------------|-------------------------|---------|----------|-----------|-----|-------------|------------|------------|---------|---------|------------|------------|------------|------------|----------|--------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| Bin Class | Cycle s | + Traile | Axle Long | Bus | Axle 6-Tire | Axle Singl | Axle Singl | Doubl e | Doubl e | Axle Doubl | Axle Multi | Axle Multi | Axle Multi | ssifie d | Cycle s | + Traile | Axle Long | Bus | Axle 6-Tire | Axle Singl | Axle Singl | Doubl e | Doubl e | Axle Doubl | Axle Multi | Axle Multi | Axle Multi | ssifie d | Total |
| 8/9/2018 | 1.2% | 63.4% | 19.0% | 0.8% | 7.4% | 1.0% | 0.5% | 2.0% | 0.8% | 1.1% | 0.1% | 0.0% | 0.9% | 1.9% | 189 | 10147 | 3035 | 121 | 1187 | 168 | 73 | 327 | 121 | 180 | 14 | 4 | 152 | 297 | 16015 |
| 8/10/2018 | 1.3% | 63.5% | 19.3% | 0.6% | 6.8% | 1.1% | 0.5% | 2.1% | 0.7% | 0.9% | 0.1% | 0.1% | 0.7% | 2.2% | 219 | 10636 | 3239 | 96 | 1136 | 190 | 88 | 358 | 110 | 158 | 24 | 14 | 121 | 363 | 16752 |
| 8/11/2018 | 1.2% | 68.3% | 18.6% | 0.5% | 5.6% | 0.9% | 0.4% | 1.6% | 0.3% | 0.4% | 0.1% | 0.0% | 0.3% | 1.8% | 180 | 9949 | 2714 | 67 | 816 | 131 | 59 | 240 | 40 | 56 | 13 | 3 | 37 | 269 | 14574 |
| 8/12/2018 | 1.5% | 67.3% | 18.9% | 0.2% | 5.3% | 0.8% | 0.5% | 2.4% | 0.4% | 0.2% | 0.1% | 0.1% | 0.2% | 2.1% | 229 | 10207 | 2867 | 30 | 801 | 117 | 83 | 363 | 56 | 34 | 22 | 8 | 32 | 320 | 15169 |
| 8/13/2018 | 1.3% | 63.6% | 19.2% | 0.6% | 7.1% | 1.2% | 0.4% | 1.9% | 0.7% | 1.0% | 0.1% | 0.1% | 1.0% | 2.1% | 203 | 9817 | 2958 | 91 | 1091 | 178 | 64 | 291 | 107 | 156 | 9 | 9 | 150 | 317 | 15441 |
| 8/14/2018 | 1.3% | 62.0% | 19.0% | 0.8% | 8.3% | 1.2% | 0.4% | 2.1% | 0.7% | 1.1% | 0.1% | 0.1% | 1.1% | 1.9% | 198 | 9574 | 2938 | 118 | 1278 | 179 | 58 | 329 | 110 | 175 | 9 | 16 | 163 | 292 | 15437 |
| 8/15/2018 | 1.3% | 61.8% | 18.0% | 0.8% | 9.2% | 1.4% | 0.4% | 2.0% | 0.7% | 1.0% | 0.1% | 0.0% | 1.0% | 2.2% | 202 | 9777 | 2841 | 132 | 1452 | 224 | 64 | 319 | 110 | 163 | 9 | 4 | 159 | 354 | 15810 |
| Total | 1.3% | 64.2% | 18.9% | 0.6% | 7.1% | 1.1% | 0.4% | 2.0% | 0.6% | 0.8% | 0.1% | 0.1% | 0.7% | 2.0% | 1420 | 70107 | 20592 | 655 | 7761 | 1187 | 489 | 2227 | 654 | 922 | 100 | 58 | 814 | 2212 | 109198 |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume |
|---------------|---------|----------|-----------|-------|-------------|------------|------------|---------|---------|------------|------------|------------|------------|----------|--------|
| Bin Class | Cycle s | + Traile | Axle Long | Bus | Axle 6-Tire | Axle Singl | Axle Singl | Doubl e | Doubl e | Axle Doubl | Axle Multi | Axle Multi | Axle Multi | ssifie d | Volume |
| Survey Total | 1420 | 70107 | 20592 | 655 | 7761 | 1187 | 489 | 2227 | 654 | 922 | 100 | 58 | 814 | 2212 | 109198 |
| % Total | 1.3% | 64.2% | 18.9% | 0.6% | 7.1% | 1.1% | 0.4% | 2.0% | 0.6% | 0.8% | 0.1% | 0.1% | 0.7% | 2.0% | 100% |
| Accumulated % | 1.3% | 65.5% | 84.4% | 85.0% | 92.1% | 93.2% | 93.6% | 95.6% | 96.2% | 97.1% | 97.2% | 97.2% | 98.0% | 100.0% | |
| Inv. Accum. % | 98.7% | 34.5% | 15.6% | 15.0% | 7.9% | 6.8% | 6.4% | 4.4% | 3.8% | 2.9% | 2.8% | 2.8% | 2.0% | 0.0% | |



Site notes

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 north of Grouhel Rd

NB

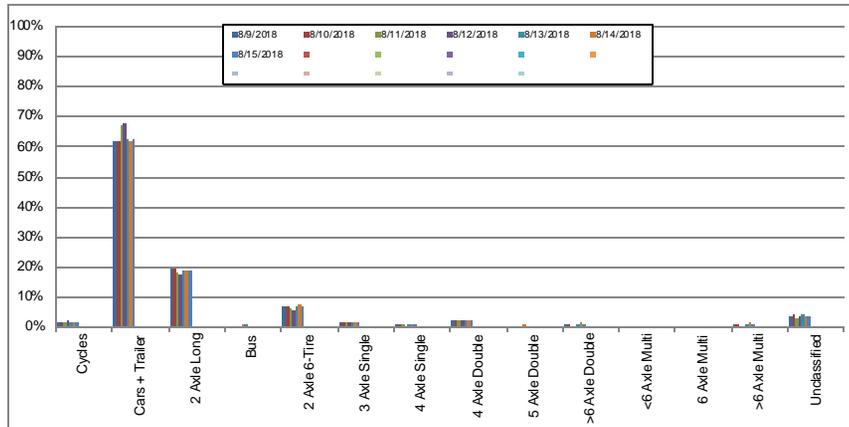
August 9, 2018 to August 15, 2018



| Daily Class Bin Percentages | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | |
|-----------------------------|---------|----------|-----------|------|-------------|------------|------------|--------|--------|-------------|------------|------------|------------|-------------------------|---------|----------|-----------|-----|-------------|------------|------------|--------|--------|-------------|------------|------------|------------|----------|--------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total |
| Bin Class | Cycle s | + Traile | Axle Long | Bus | Axle 6-Tire | Axle Singl | Axle Singl | Double | Double | Axle Double | Axle Multi | Axle Multi | Axle Multi | ssifie d | Cycle s | + Traile | Axle Long | Bus | Axle 6-Tire | Axle Singl | Axle Singl | Double | Double | Axle Double | Axle Multi | Axle Multi | Axle Multi | ssifie d | Volume |
| 8/9/2018 | 1.5% | 61.9% | 19.1% | 0.6% | 7.0% | 1.2% | 0.8% | 2.0% | 0.6% | 1.0% | 0.0% | 0.1% | 0.8% | 3.6% | 248 | 10187 | 3144 | 106 | 1147 | 196 | 126 | 321 | 94 | 159 | 6 | 13 | 124 | 585 | 16456 |
| 8/10/2018 | 1.5% | 61.8% | 19.3% | 0.5% | 6.6% | 1.2% | 0.8% | 2.2% | 0.5% | 0.9% | 0.1% | 0.1% | 0.8% | 3.7% | 269 | 10867 | 3395 | 96 | 1165 | 204 | 145 | 394 | 88 | 157 | 9 | 18 | 132 | 652 | 17591 |
| 8/11/2018 | 1.3% | 66.6% | 18.0% | 0.4% | 6.0% | 1.3% | 0.7% | 1.8% | 0.4% | 0.4% | 0.0% | 0.0% | 0.3% | 2.8% | 185 | 9837 | 2653 | 53 | 892 | 189 | 103 | 260 | 60 | 65 | 5 | 7 | 44 | 414 | 14767 |
| 8/12/2018 | 1.7% | 67.4% | 17.4% | 0.2% | 5.6% | 1.1% | 0.7% | 1.9% | 0.4% | 0.2% | 0.0% | 0.1% | 0.2% | 3.3% | 240 | 9412 | 2429 | 29 | 775 | 147 | 92 | 259 | 53 | 34 | 4 | 13 | 21 | 455 | 13963 |
| 8/13/2018 | 1.4% | 62.2% | 18.7% | 0.5% | 6.7% | 1.4% | 0.7% | 1.9% | 0.6% | 1.0% | 0.0% | 0.1% | 0.9% | 3.9% | 219 | 9401 | 2831 | 71 | 1014 | 204 | 102 | 289 | 89 | 150 | 7 | 8 | 136 | 586 | 15107 |
| 8/14/2018 | 1.5% | 61.4% | 18.6% | 0.7% | 7.1% | 1.2% | 0.9% | 2.0% | 0.8% | 1.2% | 0.0% | 0.1% | 1.1% | 3.5% | 233 | 9425 | 2862 | 105 | 1092 | 185 | 142 | 304 | 116 | 179 | 7 | 11 | 165 | 531 | 15357 |
| 8/15/2018 | 1.6% | 62.2% | 18.5% | 0.7% | 6.7% | 1.2% | 0.7% | 1.9% | 0.7% | 1.0% | 0.1% | 0.0% | 1.0% | 3.6% | 250 | 9806 | 2911 | 111 | 1058 | 194 | 115 | 307 | 103 | 158 | 8 | 7 | 151 | 575 | 15754 |
| Total | 1.5% | 63.2% | 18.6% | 0.5% | 6.6% | 1.2% | 0.8% | 2.0% | 0.6% | 0.8% | 0.0% | 0.1% | 0.7% | 3.5% | 1644 | 68935 | 20225 | 571 | 7143 | 1319 | 825 | 2134 | 603 | 902 | 46 | 77 | 773 | 3798 | 108995 |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Volume |
|----------------------|---------|----------|-----------|-------|-------------|------------|------------|--------|--------|-------------|------------|------------|------------|----------|--------|
| Bin Class | Cycle s | + Traile | Axle Long | Bus | Axle 6-Tire | Axle Singl | Axle Singl | Double | Double | Axle Double | Axle Multi | Axle Multi | Axle Multi | ssifie d | Volume |
| Survey Total | 1644 | 68935 | 20225 | 571 | 7143 | 1319 | 825 | 2134 | 603 | 902 | 46 | 77 | 773 | 3798 | 108995 |
| % Total | 1.5% | 63.2% | 18.6% | 0.5% | 6.6% | 1.2% | 0.8% | 2.0% | 0.6% | 0.8% | 0.0% | 0.1% | 0.7% | 3.5% | 100% |
| Accumulated % | 1.5% | 64.8% | 83.3% | 83.8% | 90.4% | 91.6% | 92.4% | 94.3% | 94.9% | 95.7% | 95.7% | 95.8% | 96.5% | 100.0% | |
| Inv. Accum. % | 98.5% | 35.2% | 16.7% | 16.2% | 9.6% | 8.4% | 7.6% | 5.7% | 5.1% | 4.3% | 4.3% | 4.2% | 3.5% | 0.0% | |



Site notes

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 between 1st Ave and Transfer Beach Blvd

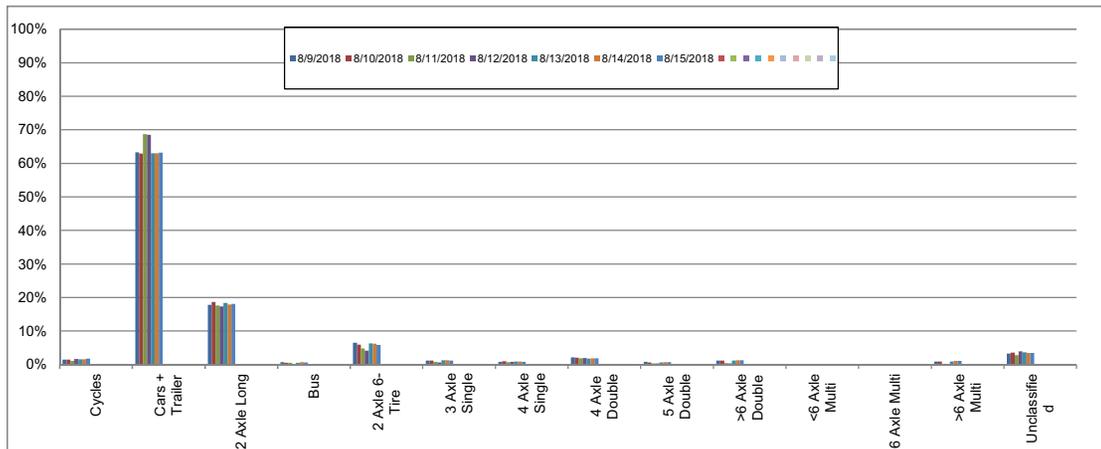
SB

August 9, 2018 to August 15, 2018

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.5% | 63.3% | 17.8% | 0.7% | 6.5% | 1.2% | 0.8% | 2.1% | 0.8% | 1.2% | 0.0% | 0.1% | 0.9% | 3.2% | 215 | 9121 | 2560 | 97 | 936 | 169 | 110 | 304 | 112 | 171 | 7 | 9 | 126 | 467 | 14404 | |
| 8/10/2018 | 1.4% | 62.9% | 18.6% | 0.5% | 5.9% | 1.2% | 1.0% | 2.1% | 0.6% | 1.2% | 0.1% | 0.1% | 0.9% | 3.5% | 214 | 9462 | 2802 | 81 | 893 | 184 | 147 | 311 | 92 | 176 | 8 | 12 | 135 | 530 | 15047 | |
| 8/11/2018 | 1.1% | 68.7% | 17.6% | 0.5% | 4.7% | 0.8% | 0.7% | 1.8% | 0.4% | 0.5% | 0.0% | 0.1% | 0.3% | 2.8% | 142 | 9138 | 2344 | 63 | 631 | 107 | 98 | 244 | 49 | 62 | 3 | 11 | 35 | 372 | 13299 | |
| 8/12/2018 | 1.7% | 68.5% | 17.3% | 0.1% | 4.1% | 0.6% | 0.8% | 1.9% | 0.4% | 0.3% | 0.0% | 0.1% | 0.2% | 3.9% | 241 | 9712 | 2454 | 18 | 579 | 90 | 113 | 270 | 52 | 48 | 5 | 11 | 24 | 553 | 14170 | |
| 8/13/2018 | 1.5% | 63.0% | 18.4% | 0.5% | 6.3% | 1.3% | 0.9% | 1.7% | 0.6% | 1.2% | 0.0% | 0.1% | 0.9% | 3.6% | 211 | 8702 | 2536 | 75 | 869 | 173 | 122 | 241 | 88 | 162 | 4 | 11 | 124 | 500 | 13818 | |
| 8/14/2018 | 1.5% | 63.0% | 17.9% | 0.7% | 6.2% | 1.3% | 0.9% | 1.9% | 0.7% | 1.3% | 0.1% | 0.0% | 1.1% | 3.5% | 208 | 8605 | 2447 | 101 | 844 | 172 | 127 | 258 | 101 | 174 | 9 | 3 | 145 | 475 | 13669 | |
| 8/15/2018 | 1.8% | 63.2% | 18.0% | 0.7% | 5.9% | 1.2% | 0.8% | 1.9% | 0.7% | 1.3% | 0.0% | 0.0% | 1.1% | 3.5% | 250 | 8962 | 2558 | 93 | 830 | 171 | 116 | 263 | 94 | 180 | 4 | 7 | 153 | 496 | 14177 | |
| Total | 1.5% | 64.6% | 18.0% | 0.5% | 5.7% | 1.1% | 0.8% | 1.9% | 0.6% | 1.0% | 0.0% | 0.1% | 0.8% | 3.4% | 1481 | 63702 | 17701 | 528 | 5582 | 1066 | 833 | 1891 | 588 | 973 | 40 | 64 | 742 | 3393 | 98584 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1481 | 63702 | 17701 | 528 | 5582 | 1066 | 833 | 1891 | 588 | 973 | 40 | 64 | 742 | 3393 | 98584 |
| % Total | 1.5% | 64.6% | 18.0% | 0.5% | 5.7% | 1.1% | 0.8% | 1.9% | 0.6% | 1.0% | 0.0% | 0.1% | 0.8% | 3.4% | 100% |
| Accumulated % | 1.5% | 66.1% | 84.1% | 84.6% | 90.3% | 91.4% | 92.2% | 94.1% | 94.7% | 95.7% | 95.7% | 95.8% | 96.6% | 100.0% | |
| Inv. Accum. % | 98.5% | 33.9% | 15.9% | 15.4% | 9.7% | 8.6% | 7.8% | 5.9% | 5.3% | 4.3% | 4.3% | 4.2% | 3.4% | 0.0% | |



Site notes:

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 between 1st Ave and Transfer Beach Blvd

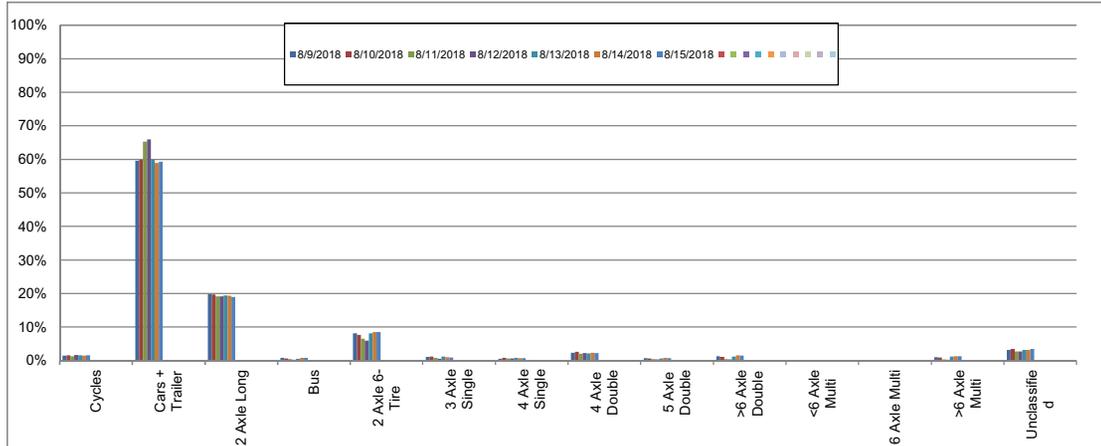
NB

August 9, 2018 to August 15, 2018

| Daily Class Bin Percentages | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | Total Volume | |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|-------------------------|--------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | 14 |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | |
| 8/9/2018 | 1.5% | 59.6% | 19.8% | 0.8% | 8.1% | 1.1% | 0.6% | 2.3% | 0.7% | 1.3% | 0.0% | 0.1% | 1.0% | 3.2% | 204 | 8225 | 2733 | 107 | 1119 | 146 | 78 | 322 | 97 | 179 | 5 | 13 | 133 | 436 | 13797 |
| 8/10/2018 | 1.5% | 59.8% | 19.7% | 0.6% | 7.6% | 1.1% | 0.8% | 2.6% | 0.6% | 1.1% | 0.1% | 0.1% | 0.9% | 3.5% | 232 | 8987 | 2962 | 90 | 1143 | 171 | 118 | 388 | 87 | 160 | 11 | 16 | 136 | 519 | 15020 |
| 8/11/2018 | 1.3% | 65.3% | 19.1% | 0.4% | 6.5% | 0.8% | 0.6% | 2.0% | 0.4% | 0.4% | 0.0% | 0.1% | 0.3% | 2.7% | 163 | 8227 | 2411 | 53 | 816 | 96 | 74 | 257 | 54 | 53 | 4 | 13 | 38 | 340 | 12599 |
| 8/12/2018 | 1.6% | 65.9% | 19.1% | 0.2% | 6.0% | 0.5% | 0.6% | 2.3% | 0.3% | 0.4% | 0.0% | 0.1% | 0.2% | 2.7% | 201 | 8070 | 2337 | 28 | 731 | 65 | 79 | 276 | 40 | 44 | 3 | 9 | 25 | 335 | 12243 |
| 8/13/2018 | 1.6% | 59.9% | 19.4% | 0.6% | 8.1% | 1.2% | 0.8% | 2.1% | 0.6% | 1.2% | 0.0% | 0.1% | 1.2% | 3.2% | 200 | 7618 | 2466 | 70 | 1032 | 156 | 106 | 272 | 76 | 150 | 5 | 13 | 152 | 402 | 12718 |
| 8/14/2018 | 1.5% | 58.9% | 19.4% | 0.8% | 8.5% | 1.0% | 0.7% | 2.3% | 0.8% | 1.6% | 0.1% | 0.1% | 1.3% | 3.2% | 187 | 7550 | 2481 | 105 | 1092 | 127 | 93 | 295 | 99 | 200 | 8 | 10 | 163 | 407 | 12817 |
| 8/15/2018 | 1.6% | 59.3% | 19.0% | 0.8% | 8.5% | 0.9% | 0.7% | 2.2% | 0.7% | 1.5% | 0.0% | 0.1% | 1.2% | 3.5% | 214 | 7880 | 2520 | 106 | 1125 | 124 | 89 | 297 | 99 | 201 | 3 | 10 | 164 | 462 | 13294 |
| Total | 1.5% | 61.2% | 19.4% | 0.6% | 7.6% | 1.0% | 0.7% | 2.3% | 0.6% | 1.1% | 0.0% | 0.1% | 0.9% | 3.1% | 1401 | 56557 | 17910 | 559 | 7058 | 885 | 637 | 2107 | 552 | 987 | 39 | 84 | 811 | 2901 | 92488 |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|---------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | |
| Survey Total | 1401 | 56557 | 17910 | 559 | 7058 | 885 | 637 | 2107 | 552 | 987 | 39 | 84 | 811 | 2901 | 92488 |
| % Total | 1.5% | 61.2% | 19.4% | 0.6% | 7.6% | 1.0% | 0.7% | 2.3% | 0.6% | 1.1% | 0.0% | 0.1% | 0.9% | 3.1% | 100% |
| Accumulated % | 1.5% | 62.7% | 82.0% | 82.6% | 90.3% | 91.2% | 91.9% | 94.2% | 94.8% | 95.9% | 95.9% | 96.0% | 96.9% | 100.0% | |
| Inv. Accum. % | 98.5% | 37.3% | 18.0% | 17.4% | 9.7% | 8.8% | 8.1% | 5.8% | 5.2% | 4.1% | 4.1% | 4.0% | 3.1% | 0.0% | |



Site notes:

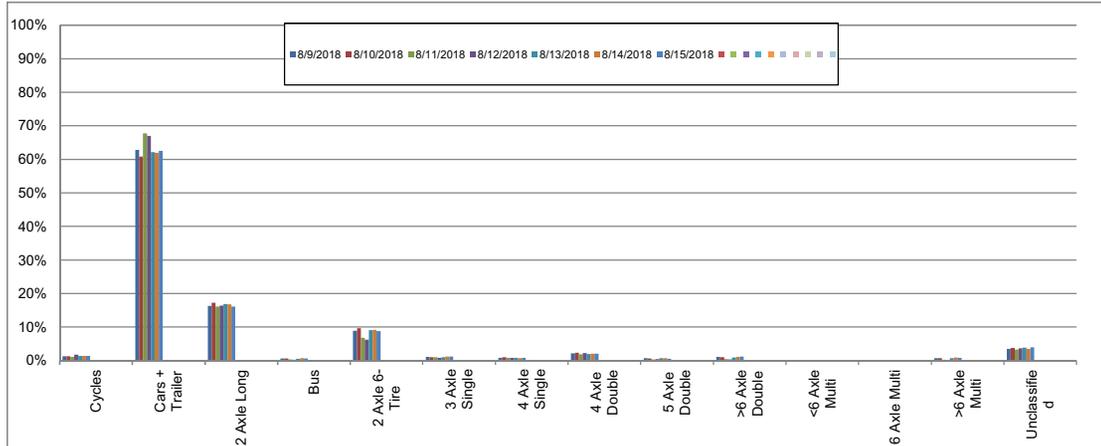
Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.3% | 62.8% | 16.2% | 0.7% | 8.8% | 1.1% | 0.8% | 2.1% | 0.7% | 1.1% | 0.0% | 0.0% | 0.7% | 3.5% | 214 | 10198 | 2636 | 107 | 1433 | 174 | 133 | 347 | 116 | 176 | 7 | 7 | 115 | 563 | 16226 | |
| 8/10/2018 | 1.3% | 60.8% | 17.2% | 0.6% | 9.7% | 0.9% | 1.0% | 2.3% | 0.6% | 0.9% | 0.1% | 0.1% | 0.7% | 3.8% | 210 | 10054 | 2850 | 99 | 1597 | 157 | 159 | 381 | 104 | 157 | 14 | 21 | 114 | 626 | 16543 | |
| 8/11/2018 | 1.1% | 67.8% | 16.1% | 0.4% | 6.8% | 0.9% | 0.8% | 1.9% | 0.3% | 0.4% | 0.0% | 0.1% | 0.2% | 3.3% | 157 | 9919 | 2353 | 54 | 994 | 139 | 114 | 273 | 50 | 59 | 2 | 8 | 33 | 481 | 14636 | |
| 8/12/2018 | 1.8% | 66.9% | 16.4% | 0.2% | 6.2% | 0.8% | 0.8% | 2.3% | 0.4% | 0.3% | 0.1% | 0.1% | 0.1% | 3.6% | 274 | 10305 | 2521 | 31 | 953 | 118 | 120 | 347 | 67 | 48 | 10 | 18 | 22 | 559 | 15393 | |
| 8/13/2018 | 1.4% | 62.1% | 16.8% | 0.5% | 9.1% | 1.0% | 0.8% | 1.9% | 0.7% | 0.9% | 0.0% | 0.1% | 0.7% | 3.8% | 211 | 9464 | 2563 | 82 | 1384 | 150 | 121 | 291 | 111 | 142 | 6 | 13 | 108 | 586 | 15232 | |
| 8/14/2018 | 1.4% | 61.9% | 16.7% | 0.7% | 9.2% | 1.1% | 0.7% | 2.0% | 0.7% | 1.1% | 0.0% | 0.1% | 0.9% | 3.5% | 211 | 9390 | 2538 | 101 | 1389 | 174 | 103 | 309 | 102 | 170 | 6 | 11 | 131 | 529 | 15164 | |
| 8/15/2018 | 1.4% | 62.6% | 16.1% | 0.6% | 8.8% | 1.2% | 0.8% | 2.1% | 0.5% | 1.1% | 0.0% | 0.0% | 0.8% | 3.9% | 217 | 9921 | 2558 | 93 | 1393 | 190 | 132 | 327 | 83 | 182 | 3 | 7 | 134 | 617 | 15857 | |
| Total | 1.4% | 63.5% | 16.5% | 0.5% | 8.4% | 1.0% | 0.8% | 2.1% | 0.6% | 0.9% | 0.0% | 0.1% | 0.6% | 3.6% | 1494 | 69251 | 18019 | 567 | 9143 | 1102 | 882 | 2275 | 633 | 934 | 48 | 85 | 657 | 3961 | 109051 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1494 | 69251 | 18019 | 567 | 9143 | 1102 | 882 | 2275 | 633 | 934 | 48 | 85 | 657 | 3961 | 109051 |
| % Total | 1.4% | 63.5% | 16.5% | 0.5% | 8.4% | 1.0% | 0.8% | 2.1% | 0.6% | 0.9% | 0.0% | 0.1% | 0.6% | 3.6% | 100% |
| Accumulated % | 1.4% | 64.9% | 81.4% | 81.9% | 90.3% | 91.3% | 92.1% | 94.2% | 94.8% | 95.6% | 95.7% | 95.8% | 96.4% | 100.0% | |
| Inv. Accum. % | 98.6% | 35.1% | 18.6% | 18.1% | 9.7% | 8.7% | 7.9% | 5.8% | 5.2% | 4.4% | 4.3% | 4.2% | 3.6% | 0.0% | |



Site notes:

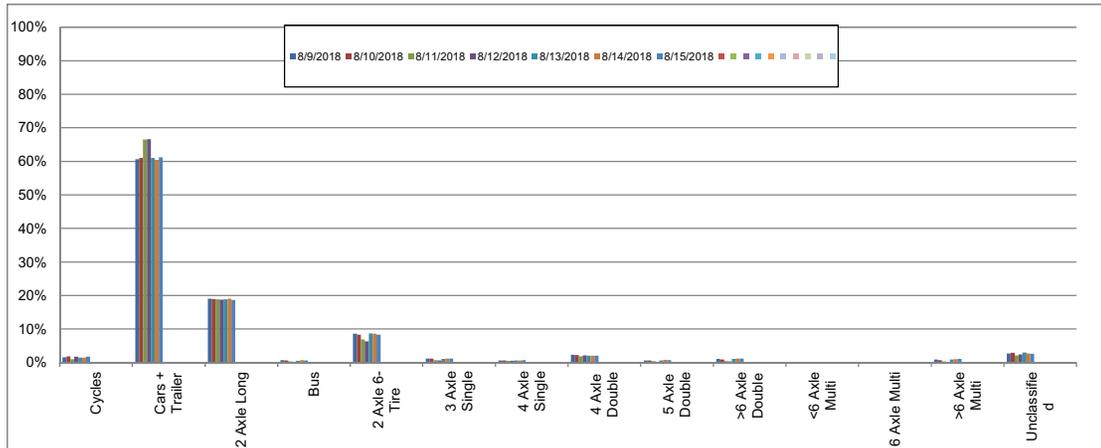
Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.5% | 60.6% | 19.0% | 0.7% | 8.6% | 1.2% | 0.6% | 2.3% | 0.6% | 1.1% | 0.0% | 0.0% | 0.9% | 2.7% | 238 | 9355 | 2937 | 108 | 1323 | 179 | 95 | 358 | 94 | 173 | 3 | 3 | 142 | 421 | 15429 | |
| 8/10/2018 | 1.9% | 61.0% | 19.0% | 0.6% | 8.3% | 1.2% | 0.6% | 2.3% | 0.6% | 0.9% | 0.0% | 0.0% | 0.7% | 2.9% | 314 | 10272 | 3198 | 100 | 1400 | 202 | 101 | 383 | 107 | 146 | 7 | 8 | 124 | 489 | 16851 | |
| 8/11/2018 | 1.0% | 66.5% | 18.9% | 0.4% | 6.9% | 0.7% | 0.6% | 1.8% | 0.4% | 0.4% | 0.0% | 0.0% | 0.3% | 2.2% | 138 | 9430 | 2675 | 50 | 978 | 94 | 78 | 257 | 54 | 54 | 4 | 7 | 47 | 307 | 14173 | |
| 8/12/2018 | 1.7% | 66.6% | 18.8% | 0.2% | 6.3% | 0.6% | 0.5% | 2.1% | 0.3% | 0.3% | 0.0% | 0.0% | 0.2% | 2.4% | 231 | 8892 | 2505 | 33 | 840 | 77 | 71 | 280 | 35 | 38 | 3 | 4 | 21 | 321 | 13351 | |
| 8/13/2018 | 1.4% | 61.0% | 18.9% | 0.6% | 8.7% | 1.1% | 0.6% | 2.1% | 0.6% | 1.1% | 0.0% | 0.1% | 0.9% | 3.0% | 206 | 8716 | 2699 | 79 | 1238 | 158 | 86 | 297 | 92 | 155 | 7 | 10 | 126 | 422 | 14291 | |
| 8/14/2018 | 1.5% | 60.5% | 19.0% | 0.7% | 8.6% | 1.2% | 0.6% | 2.1% | 0.8% | 1.2% | 0.0% | 0.1% | 1.0% | 2.7% | 217 | 8729 | 2742 | 101 | 1237 | 167 | 93 | 296 | 119 | 176 | 5 | 11 | 149 | 397 | 14439 | |
| 8/15/2018 | 1.7% | 61.2% | 18.6% | 0.6% | 8.3% | 1.2% | 0.7% | 2.1% | 0.7% | 1.2% | 0.0% | 0.0% | 1.1% | 2.6% | 265 | 9289 | 2828 | 97 | 1259 | 182 | 102 | 312 | 105 | 179 | 1 | 6 | 163 | 394 | 15182 | |
| Total | 1.6% | 62.4% | 18.9% | 0.5% | 8.0% | 1.0% | 0.6% | 2.1% | 0.6% | 0.9% | 0.0% | 0.0% | 0.7% | 2.7% | 1609 | 64683 | 19584 | 568 | 8275 | 1059 | 626 | 2183 | 606 | 921 | 30 | 49 | 772 | 2751 | 103716 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1609 | 64683 | 19584 | 568 | 8275 | 1059 | 626 | 2183 | 606 | 921 | 30 | 49 | 772 | 2751 | 103716 |
| % Total | 1.6% | 62.4% | 18.9% | 0.5% | 8.0% | 1.0% | 0.6% | 2.1% | 0.6% | 0.9% | 0.0% | 0.0% | 0.7% | 2.7% | 100% |
| Accumulated % | 1.6% | 63.9% | 82.8% | 83.3% | 91.3% | 92.3% | 92.9% | 95.1% | 95.6% | 96.5% | 96.6% | 96.6% | 97.3% | 100.0% | |
| Inv. Accum. % | 98.4% | 36.1% | 17.2% | 16.7% | 8.7% | 7.7% | 7.1% | 4.9% | 4.4% | 3.5% | 3.4% | 3.4% | 2.7% | 0.0% | |



Site notes:

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
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| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 between N Davis Rd and S Davis Rd

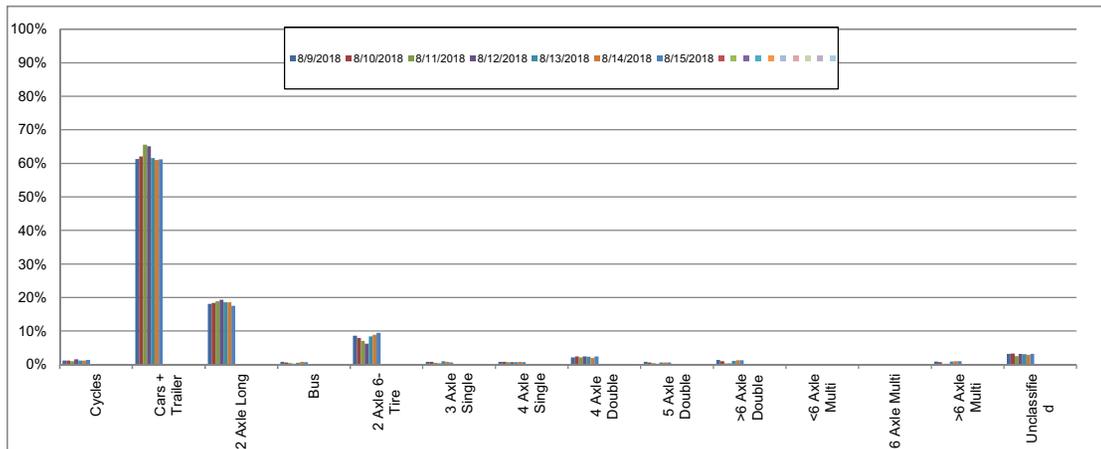
SB

August 9, 2018 to August 15, 2018

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | Total Volume | | | |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 12 | 13 | 14 |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | |
| 8/9/2018 | 1.2% | 61.3% | 18.1% | 0.8% | 8.6% | 0.8% | 0.8% | 2.2% | 0.8% | 1.4% | 0.0% | 0.1% | 0.9% | 3.1% | 158 | 8058 | 2376 | 106 | 1126 | 108 | 103 | 283 | 103 | 185 | 6 | 9 | 116 | 412 | 13149 |
| 8/10/2018 | 1.2% | 62.0% | 18.4% | 0.6% | 7.9% | 0.8% | 0.8% | 2.4% | 0.6% | 1.0% | 0.1% | 0.2% | 0.7% | 3.3% | 162 | 8622 | 2556 | 83 | 1100 | 110 | 115 | 330 | 86 | 141 | 12 | 21 | 104 | 460 | 13902 |
| 8/11/2018 | 1.0% | 65.5% | 18.8% | 0.5% | 7.1% | 0.5% | 0.7% | 2.2% | 0.4% | 0.4% | 0.0% | 0.1% | 0.2% | 2.5% | 126 | 8003 | 2301 | 57 | 869 | 61 | 82 | 263 | 53 | 44 | 6 | 9 | 29 | 310 | 12213 |
| 8/12/2018 | 1.5% | 65.1% | 19.3% | 0.2% | 6.2% | 0.4% | 0.7% | 2.4% | 0.3% | 0.4% | 0.0% | 0.1% | 0.2% | 3.2% | 195 | 8351 | 2481 | 28 | 794 | 46 | 90 | 309 | 34 | 48 | 5 | 12 | 24 | 413 | 12830 |
| 8/13/2018 | 1.2% | 61.5% | 18.5% | 0.6% | 8.4% | 1.0% | 0.7% | 2.3% | 0.6% | 1.1% | 0.0% | 0.1% | 0.9% | 3.1% | 154 | 7827 | 2358 | 71 | 1066 | 123 | 87 | 297 | 80 | 141 | 3 | 13 | 113 | 388 | 12721 |
| 8/14/2018 | 1.2% | 61.0% | 18.6% | 0.8% | 8.9% | 0.8% | 0.8% | 2.0% | 0.6% | 1.3% | 0.0% | 0.1% | 1.0% | 2.9% | 154 | 7728 | 2351 | 99 | 1124 | 104 | 105 | 251 | 79 | 160 | 5 | 8 | 124 | 368 | 12660 |
| 8/15/2018 | 1.4% | 61.2% | 17.5% | 0.8% | 9.4% | 0.6% | 0.7% | 2.4% | 0.6% | 1.3% | 0.1% | 0.1% | 1.0% | 3.1% | 181 | 8011 | 2288 | 99 | 1236 | 81 | 89 | 311 | 76 | 170 | 8 | 12 | 125 | 411 | 13098 |
| Total | 1.2% | 62.5% | 18.5% | 0.6% | 8.1% | 0.7% | 0.7% | 2.3% | 0.6% | 1.0% | 0.0% | 0.1% | 0.7% | 3.0% | 1130 | 56600 | 16711 | 543 | 7315 | 633 | 671 | 2044 | 511 | 889 | 45 | 84 | 635 | 2762 | 90573 |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | |
| Survey Total | 1130 | 56600 | 16711 | 543 | 7315 | 633 | 671 | 2044 | 511 | 889 | 45 | 84 | 635 | 2762 | 90573 |
| % Total | 1.2% | 62.5% | 18.5% | 0.6% | 8.1% | 0.7% | 0.7% | 2.3% | 0.6% | 1.0% | 0.0% | 0.1% | 0.7% | 3.0% | 100% |
| Accumulated % | 1.2% | 63.7% | 82.2% | 82.8% | 90.9% | 91.6% | 92.3% | 94.6% | 95.1% | 96.1% | 96.2% | 96.2% | 97.0% | 100.0% | |
| Inv. Accum. % | 98.8% | 36.3% | 17.8% | 17.2% | 9.1% | 8.4% | 7.7% | 5.4% | 4.9% | 3.9% | 3.8% | 3.8% | 3.0% | 0.0% | |



Site notes:

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 between N Davis Rd and S Davis Rd

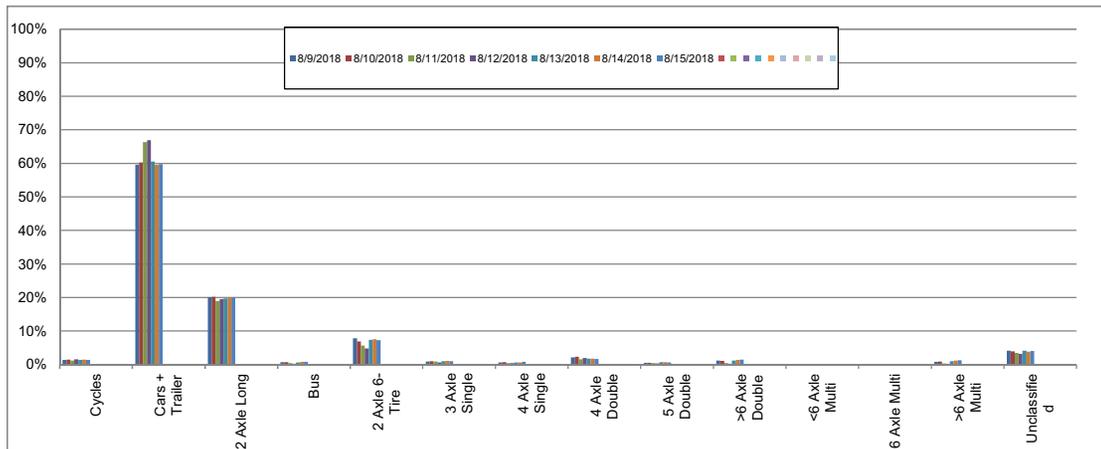
NB

August 9, 2018 to August 15, 2018

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.4% | 59.6% | 20.1% | 0.8% | 7.8% | 0.9% | 0.6% | 2.1% | 0.5% | 1.2% | 0.0% | 0.1% | 0.8% | 4.1% | 183 | 7765 | 2623 | 98 | 1017 | 121 | 75 | 272 | 68 | 158 | 1 | 7 | 108 | 541 | 13037 | |
| 8/10/2018 | 1.4% | 60.3% | 20.2% | 0.7% | 6.8% | 1.0% | 0.7% | 2.3% | 0.5% | 1.1% | 0.1% | 0.1% | 0.9% | 4.0% | 206 | 8600 | 2883 | 95 | 976 | 140 | 100 | 331 | 71 | 156 | 8 | 14 | 125 | 568 | 14273 | |
| 8/11/2018 | 1.1% | 66.3% | 19.0% | 0.5% | 5.6% | 0.9% | 0.4% | 1.6% | 0.4% | 0.5% | 0.0% | 0.0% | 0.3% | 3.4% | 139 | 8027 | 2297 | 57 | 678 | 107 | 51 | 188 | 46 | 55 | 2 | 6 | 38 | 414 | 12105 | |
| 8/12/2018 | 1.6% | 66.9% | 19.5% | 0.2% | 4.8% | 0.6% | 0.4% | 2.0% | 0.3% | 0.2% | 0.0% | 0.1% | 0.2% | 3.2% | 179 | 7556 | 2203 | 27 | 543 | 65 | 46 | 222 | 39 | 24 | 1 | 6 | 25 | 364 | 11300 | |
| 8/13/2018 | 1.4% | 60.6% | 19.7% | 0.6% | 7.4% | 1.0% | 0.6% | 1.7% | 0.7% | 1.2% | 0.0% | 0.1% | 1.0% | 4.1% | 166 | 7268 | 2363 | 68 | 888 | 122 | 77 | 208 | 80 | 138 | 4 | 8 | 119 | 491 | 12000 | |
| 8/14/2018 | 1.4% | 59.6% | 19.9% | 0.8% | 7.5% | 1.1% | 0.6% | 1.8% | 0.7% | 1.4% | 0.0% | 0.0% | 1.2% | 3.9% | 175 | 7194 | 2406 | 95 | 906 | 129 | 77 | 217 | 90 | 167 | 5 | 6 | 145 | 468 | 12080 | |
| 8/15/2018 | 1.4% | 59.8% | 20.0% | 0.8% | 7.3% | 1.0% | 0.8% | 1.7% | 0.6% | 1.5% | 0.0% | 0.0% | 1.3% | 4.0% | 175 | 7563 | 2529 | 98 | 919 | 123 | 99 | 211 | 77 | 185 | 1 | 6 | 160 | 511 | 12657 | |
| Total | 1.4% | 61.7% | 19.8% | 0.6% | 6.8% | 0.9% | 0.6% | 1.9% | 0.5% | 1.0% | 0.0% | 0.1% | 0.8% | 3.8% | 1223 | 53973 | 17304 | 538 | 5927 | 807 | 525 | 1649 | 471 | 883 | 22 | 53 | 720 | 3357 | 87452 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1223 | 53973 | 17304 | 538 | 5927 | 807 | 525 | 1649 | 471 | 883 | 22 | 53 | 720 | 3357 | 87452 |
| % Total | 1.4% | 61.7% | 19.8% | 0.6% | 6.8% | 0.9% | 0.6% | 1.9% | 0.5% | 1.0% | 0.0% | 0.1% | 0.8% | 3.8% | 100% |
| Accumulated % | 1.4% | 63.1% | 82.9% | 83.5% | 90.3% | 91.2% | 91.8% | 93.7% | 94.2% | 95.3% | 95.3% | 95.3% | 96.2% | 100.0% | |
| Inv. Accum. % | 98.6% | 36.9% | 17.1% | 16.5% | 9.7% | 8.8% | 8.2% | 6.3% | 5.8% | 4.7% | 4.7% | 4.7% | 3.8% | 0.0% | |



Site notes:

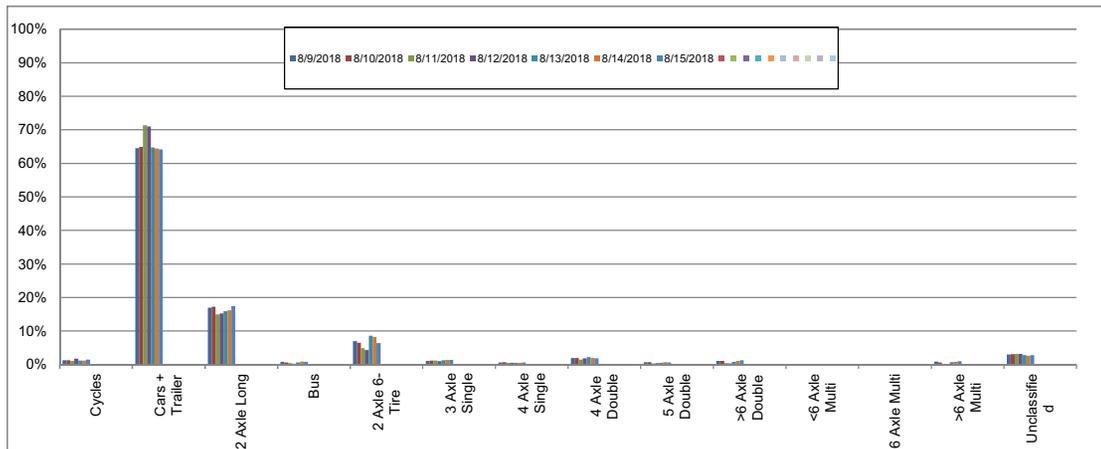
Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.3% | 64.5% | 16.9% | 0.8% | 7.0% | 1.1% | 0.7% | 2.0% | 0.7% | 1.1% | 0.0% | 0.1% | 0.9% | 3.0% | 172 | 8775 | 2299 | 110 | 945 | 151 | 89 | 267 | 101 | 153 | 5 | 7 | 116 | 407 | 13597 | |
| 8/10/2018 | 1.3% | 64.9% | 17.2% | 0.6% | 6.5% | 1.2% | 0.7% | 2.0% | 0.7% | 1.1% | 0.1% | 0.1% | 0.6% | 3.1% | 180 | 9340 | 2478 | 91 | 932 | 167 | 104 | 283 | 97 | 159 | 9 | 13 | 88 | 446 | 14387 | |
| 8/11/2018 | 1.1% | 71.4% | 14.9% | 0.4% | 4.9% | 1.2% | 0.6% | 1.5% | 0.3% | 0.4% | 0.0% | 0.1% | 0.2% | 3.1% | 134 | 9109 | 1903 | 56 | 620 | 151 | 72 | 187 | 40 | 54 | 5 | 8 | 20 | 401 | 12760 | |
| 8/12/2018 | 1.7% | 71.0% | 15.2% | 0.2% | 4.3% | 1.0% | 0.6% | 1.9% | 0.4% | 0.3% | 0.0% | 0.1% | 0.2% | 3.1% | 234 | 9560 | 2047 | 32 | 577 | 130 | 76 | 250 | 51 | 42 | 5 | 12 | 21 | 424 | 13461 | |
| 8/13/2018 | 1.2% | 64.7% | 15.9% | 0.6% | 8.6% | 1.3% | 0.5% | 2.2% | 0.5% | 0.8% | 0.0% | 0.1% | 0.7% | 2.8% | 162 | 8579 | 2103 | 86 | 1144 | 170 | 69 | 293 | 72 | 108 | 4 | 11 | 93 | 367 | 13261 | |
| 8/14/2018 | 1.2% | 64.4% | 16.2% | 0.9% | 8.2% | 1.4% | 0.6% | 1.9% | 0.7% | 1.1% | 0.0% | 0.0% | 0.8% | 2.6% | 150 | 8340 | 2101 | 111 | 1060 | 182 | 72 | 252 | 88 | 139 | 3 | 5 | 107 | 340 | 12950 | |
| 8/15/2018 | 1.5% | 64.1% | 17.4% | 0.8% | 6.4% | 1.4% | 0.6% | 1.8% | 0.7% | 1.3% | 0.1% | 0.0% | 1.0% | 2.8% | 201 | 8638 | 2350 | 106 | 864 | 191 | 84 | 249 | 89 | 174 | 8 | 6 | 137 | 377 | 13474 | |
| Total | 1.3% | 66.4% | 16.3% | 0.6% | 6.5% | 1.2% | 0.6% | 1.9% | 0.6% | 0.9% | 0.0% | 0.1% | 0.6% | 2.9% | 1233 | 62341 | 15281 | 592 | 6142 | 1142 | 566 | 1781 | 538 | 829 | 39 | 62 | 582 | 2762 | 93890 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1233 | 62341 | 15281 | 592 | 6142 | 1142 | 566 | 1781 | 538 | 829 | 39 | 62 | 582 | 2762 | 93890 |
| % Total | 1.3% | 66.4% | 16.3% | 0.6% | 6.5% | 1.2% | 0.6% | 1.9% | 0.6% | 0.9% | 0.0% | 0.1% | 0.6% | 2.9% | 100% |
| Accumulated % | 1.3% | 67.7% | 84.0% | 84.6% | 91.2% | 92.4% | 93.0% | 94.9% | 95.4% | 96.3% | 96.4% | 96.4% | 97.1% | 100.0% | |
| Inv. Accum. % | 98.7% | 32.3% | 16.0% | 15.4% | 8.8% | 7.6% | 7.0% | 5.1% | 4.6% | 3.7% | 3.6% | 3.6% | 2.9% | 0.0% | |



Site notes:

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 400m south of S Davis Rd

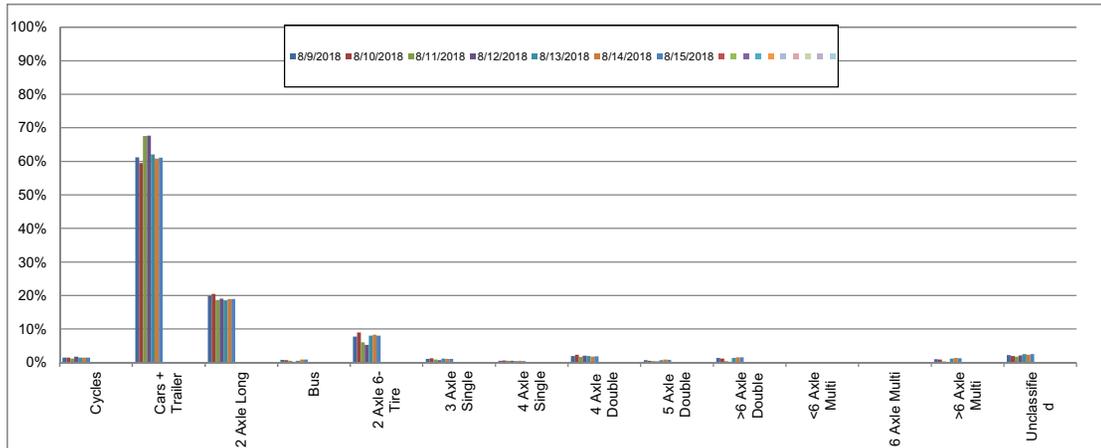
NB

August 9, 2018 to August 15, 2018

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.4% | 61.2% | 19.9% | 0.8% | 7.8% | 1.1% | 0.5% | 1.9% | 0.7% | 1.3% | 0.0% | 0.1% | 1.0% | 2.2% | 195 | 8258 | 2678 | 113 | 1046 | 150 | 66 | 257 | 100 | 181 | 5 | 7 | 131 | 300 | 13487 | |
| 8/10/2018 | 1.5% | 59.5% | 20.5% | 0.7% | 9.0% | 1.3% | 0.6% | 2.3% | 0.5% | 1.2% | 0.1% | 0.1% | 0.9% | 1.9% | 220 | 8953 | 3085 | 104 | 1351 | 192 | 92 | 350 | 78 | 177 | 9 | 17 | 136 | 292 | 15056 | |
| 8/11/2018 | 1.2% | 67.5% | 18.6% | 0.5% | 6.0% | 0.9% | 0.6% | 1.7% | 0.4% | 0.4% | 0.0% | 0.0% | 0.3% | 1.8% | 153 | 8429 | 2325 | 62 | 754 | 109 | 70 | 209 | 50 | 51 | 4 | 2 | 43 | 223 | 12484 | |
| 8/12/2018 | 1.8% | 67.6% | 19.0% | 0.2% | 5.3% | 0.7% | 0.5% | 2.0% | 0.3% | 0.3% | 0.0% | 0.0% | 0.2% | 2.1% | 207 | 7855 | 2208 | 26 | 617 | 81 | 56 | 234 | 34 | 31 | 3 | 1 | 21 | 245 | 11619 | |
| 8/13/2018 | 1.4% | 62.0% | 18.5% | 0.6% | 8.0% | 1.2% | 0.5% | 1.9% | 0.8% | 1.4% | 0.0% | 0.0% | 1.2% | 2.5% | 176 | 7681 | 2296 | 69 | 993 | 146 | 56 | 238 | 93 | 174 | 4 | 5 | 143 | 306 | 12380 | |
| 8/14/2018 | 1.4% | 60.8% | 18.9% | 0.9% | 8.3% | 1.0% | 0.5% | 1.8% | 0.9% | 1.6% | 0.0% | 0.1% | 1.4% | 2.3% | 178 | 7592 | 2363 | 108 | 1038 | 131 | 61 | 224 | 109 | 200 | 4 | 7 | 174 | 288 | 12477 | |
| 8/15/2018 | 1.5% | 61.1% | 18.9% | 0.9% | 8.0% | 1.0% | 0.5% | 1.8% | 0.8% | 1.6% | 0.0% | 0.1% | 1.3% | 2.5% | 193 | 7999 | 2479 | 113 | 1053 | 137 | 61 | 238 | 104 | 203 | 1 | 9 | 171 | 333 | 13094 | |
| Total | 1.5% | 62.7% | 19.2% | 0.7% | 7.6% | 1.0% | 0.5% | 1.9% | 0.6% | 1.1% | 0.0% | 0.1% | 0.9% | 2.2% | 1322 | 56767 | 17434 | 595 | 6852 | 946 | 462 | 1750 | 568 | 1017 | 30 | 48 | 819 | 1987 | 90597 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|---------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1322 | 56767 | 17434 | 595 | 6852 | 946 | 462 | 1750 | 568 | 1017 | 30 | 48 | 819 | 1987 | 90597 |
| % Total | 1.5% | 62.7% | 19.2% | 0.7% | 7.6% | 1.0% | 0.5% | 1.9% | 0.6% | 1.1% | 0.0% | 0.1% | 0.9% | 2.2% | 100% |
| Accumulated % | 1.5% | 64.1% | 83.4% | 84.0% | 91.6% | 92.6% | 93.1% | 95.1% | 95.7% | 96.8% | 96.8% | 96.9% | 97.8% | 100.0% | |
| Inv. Accum. % | 98.5% | 35.9% | 16.6% | 16.0% | 8.4% | 7.4% | 6.9% | 4.9% | 4.3% | 3.2% | 3.2% | 3.1% | 2.2% | 0.0% | |



Site notes:

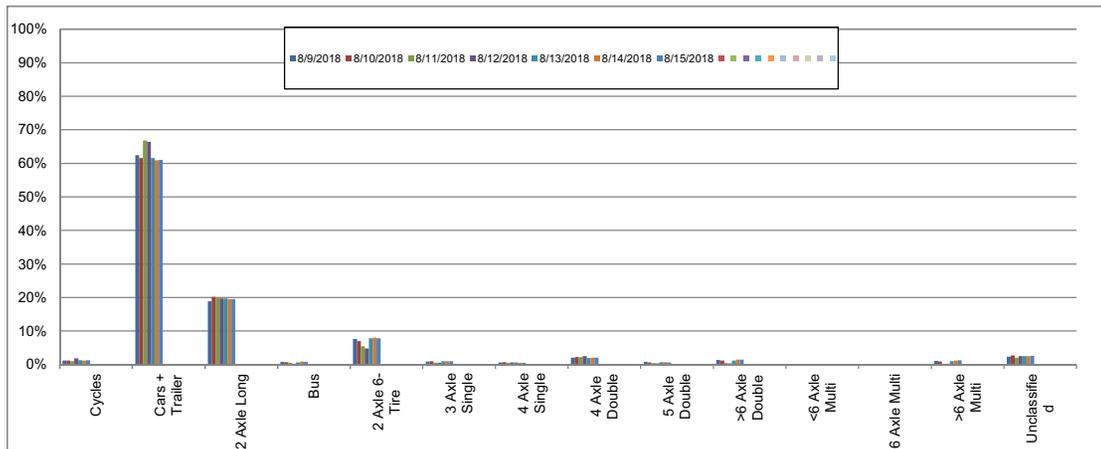
Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
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| 8 | 3-axle or 4-axle double unit |
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| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.2% | 62.4% | 18.8% | 0.8% | 7.7% | 0.9% | 0.6% | 2.1% | 0.8% | 1.4% | 0.0% | 0.0% | 1.0% | 2.3% | 156 | 8129 | 2453 | 105 | 999 | 113 | 76 | 271 | 104 | 181 | 3 | 2 | 136 | 301 | 13029 | |
| 8/10/2018 | 1.2% | 61.5% | 20.2% | 0.7% | 7.0% | 1.0% | 0.7% | 2.2% | 0.6% | 1.2% | 0.1% | 0.1% | 0.9% | 2.7% | 165 | 8397 | 2753 | 100 | 952 | 131 | 91 | 303 | 87 | 159 | 11 | 12 | 118 | 366 | 13645 | |
| 8/11/2018 | 1.0% | 66.8% | 19.9% | 0.5% | 5.5% | 0.5% | 0.5% | 2.2% | 0.4% | 0.4% | 0.1% | 0.0% | 0.3% | 2.0% | 114 | 8011 | 2383 | 59 | 659 | 60 | 60 | 264 | 53 | 49 | 8 | 5 | 31 | 240 | 11996 | |
| 8/12/2018 | 1.8% | 66.5% | 19.7% | 0.2% | 4.8% | 0.5% | 0.6% | 2.5% | 0.3% | 0.3% | 0.0% | 0.1% | 0.2% | 2.5% | 227 | 8353 | 2471 | 30 | 603 | 60 | 77 | 313 | 40 | 37 | 6 | 9 | 28 | 314 | 12568 | |
| 8/13/2018 | 1.3% | 61.6% | 19.7% | 0.6% | 7.8% | 1.0% | 0.6% | 1.9% | 0.7% | 1.2% | 0.0% | 0.1% | 1.0% | 2.5% | 158 | 7715 | 2464 | 79 | 975 | 122 | 77 | 240 | 89 | 146 | 2 | 14 | 128 | 319 | 12528 | |
| 8/14/2018 | 1.2% | 60.9% | 19.5% | 0.9% | 8.0% | 1.0% | 0.5% | 2.1% | 0.7% | 1.4% | 0.0% | 0.0% | 1.1% | 2.5% | 145 | 7451 | 2389 | 107 | 980 | 122 | 64 | 252 | 91 | 176 | 2 | 5 | 139 | 308 | 12231 | |
| 8/15/2018 | 1.3% | 61.0% | 19.5% | 0.8% | 7.8% | 0.9% | 0.5% | 2.0% | 0.6% | 1.4% | 0.0% | 0.1% | 1.3% | 2.7% | 164 | 7772 | 2480 | 105 | 997 | 121 | 69 | 255 | 82 | 184 | 3 | 11 | 160 | 338 | 12741 | |
| Total | 1.3% | 62.9% | 19.6% | 0.7% | 6.9% | 0.8% | 0.6% | 2.1% | 0.6% | 1.1% | 0.0% | 0.1% | 0.8% | 2.5% | 1129 | 55828 | 17393 | 585 | 6165 | 729 | 514 | 1898 | 546 | 932 | 35 | 58 | 740 | 2186 | 88738 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|----------------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Total Volume |
| Survey Total | 1129 | 55828 | 17393 | 585 | 6165 | 729 | 514 | 1898 | 546 | 932 | 35 | 58 | 740 | 2186 | 88738 |
| % Total | 1.3% | 62.9% | 19.6% | 0.7% | 6.9% | 0.8% | 0.6% | 2.1% | 0.6% | 1.1% | 0.0% | 0.1% | 0.8% | 2.5% | 100% |
| Accumulated % | 1.3% | 64.2% | 83.8% | 84.4% | 91.4% | 92.2% | 92.8% | 94.9% | 95.5% | 96.6% | 96.6% | 96.7% | 97.5% | 100.0% | |
| Inv. Accum. % | 98.7% | 35.8% | 16.2% | 15.6% | 8.6% | 7.8% | 7.2% | 5.1% | 4.5% | 3.4% | 3.4% | 3.3% | 2.5% | 0.0% | |



Site notes:

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

Hwy 1 400m south of Thicke Rd

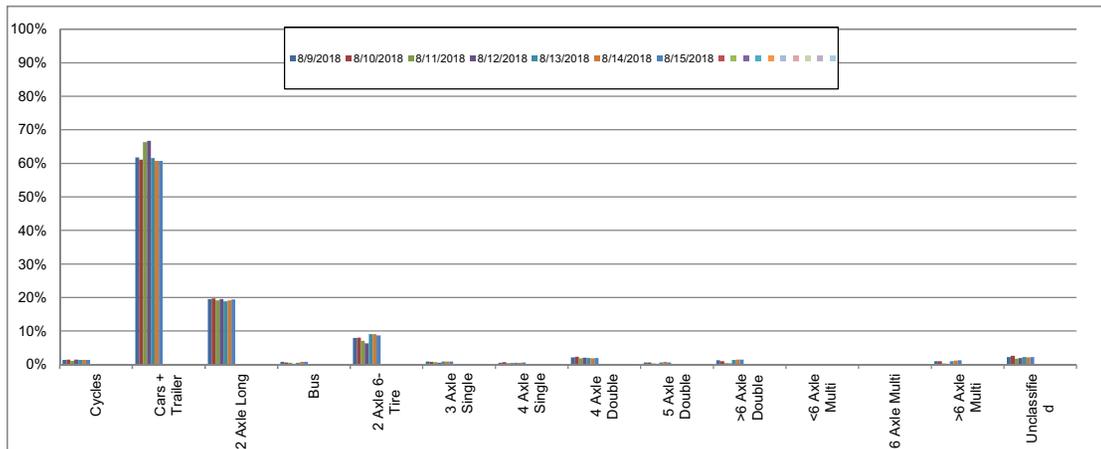
NB

August 9, 2018 to August 15, 2018

| Daily Class Bin Percentages | | | | | | | | | | | | | | | Daily Class Bin Volumes | | | | | | | | | | | | | | | Total Volume |
|-----------------------------|--------|----------------|-------------|------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------------------------|----------------|-------------|-----|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|-------|--------------|
| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | | |
| 8/9/2018 | 1.4% | 61.7% | 19.5% | 0.8% | 8.0% | 0.9% | 0.5% | 2.1% | 0.6% | 1.2% | 0.0% | 0.0% | 1.0% | 2.2% | 185 | 8435 | 2661 | 113 | 1089 | 119 | 65 | 290 | 84 | 170 | 3 | 4 | 135 | 307 | 13660 | |
| 8/10/2018 | 1.5% | 61.1% | 19.7% | 0.6% | 8.0% | 0.8% | 0.7% | 2.3% | 0.6% | 1.0% | 0.0% | 0.1% | 1.0% | 2.6% | 222 | 8973 | 2895 | 91 | 1174 | 121 | 106 | 338 | 86 | 150 | 5 | 12 | 140 | 377 | 14690 | |
| 8/11/2018 | 1.1% | 66.4% | 19.1% | 0.5% | 7.1% | 0.7% | 0.4% | 1.9% | 0.3% | 0.4% | 0.0% | 0.0% | 0.3% | 1.8% | 140 | 8264 | 2377 | 63 | 886 | 86 | 49 | 231 | 40 | 52 | 2 | 2 | 43 | 220 | 12455 | |
| 8/12/2018 | 1.5% | 66.7% | 19.5% | 0.3% | 6.4% | 0.5% | 0.4% | 2.0% | 0.2% | 0.3% | 0.0% | 0.0% | 0.2% | 1.9% | 175 | 7721 | 2264 | 29 | 736 | 62 | 48 | 236 | 27 | 34 | 2 | 4 | 23 | 221 | 11582 | |
| 8/13/2018 | 1.4% | 61.5% | 18.9% | 0.5% | 9.1% | 0.9% | 0.5% | 2.0% | 0.6% | 1.4% | 0.0% | 0.1% | 1.0% | 2.2% | 170 | 7662 | 2352 | 66 | 1132 | 108 | 61 | 244 | 71 | 174 | 4 | 7 | 119 | 280 | 12450 | |
| 8/14/2018 | 1.3% | 60.7% | 19.1% | 0.8% | 9.1% | 0.9% | 0.5% | 1.8% | 0.8% | 1.5% | 0.0% | 0.0% | 1.2% | 2.2% | 167 | 7601 | 2397 | 101 | 1141 | 107 | 65 | 228 | 102 | 187 | 4 | 4 | 148 | 273 | 12525 | |
| 8/15/2018 | 1.3% | 60.7% | 19.4% | 0.8% | 8.7% | 0.9% | 0.6% | 1.9% | 0.6% | 1.5% | 0.0% | 0.0% | 1.3% | 2.2% | 176 | 7981 | 2555 | 110 | 1141 | 113 | 76 | 256 | 84 | 193 | 2 | 5 | 172 | 290 | 13154 | |
| Total | 1.4% | 62.6% | 19.3% | 0.6% | 8.1% | 0.8% | 0.5% | 2.0% | 0.5% | 1.1% | 0.0% | 0.0% | 0.9% | 2.2% | 1235 | 56637 | 17501 | 573 | 7299 | 716 | 470 | 1823 | 494 | 960 | 22 | 38 | 780 | 1968 | 90516 | |

Class Data Summary

| Bin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Total Volume |
|---------------|--------|----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|
| Bin Class | Cycles | Cars + Trailer | 2 Axle Long | Bus | 2 Axle 6-Tire | 3 Axle Single | 4 Axle Single | 4 Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Unclassified | |
| Survey Total | 1235 | 56637 | 17501 | 573 | 7299 | 716 | 470 | 1823 | 494 | 960 | 22 | 38 | 780 | 1968 | 90516 |
| % Total | 1.4% | 62.6% | 19.3% | 0.6% | 8.1% | 0.8% | 0.5% | 2.0% | 0.5% | 1.1% | 0.0% | 0.0% | 0.9% | 2.2% | 100% |
| Accumulated % | 1.4% | 63.9% | 83.3% | 83.9% | 92.0% | 92.8% | 93.3% | 95.3% | 95.8% | 96.9% | 96.9% | 97.0% | 97.8% | 100.0% | |
| Inv. Accum. % | 98.6% | 36.1% | 16.7% | 16.1% | 8.0% | 7.2% | 6.7% | 4.7% | 4.2% | 3.1% | 3.1% | 3.0% | 2.2% | 0.0% | |



Site notes:

Classification Descriptions

| Bin # | Bin Description |
|-------|--|
| 1 | Motorcycles |
| 2 | Passenger cars, including those with recreational trailers |
| 3 | 2-axle pick-ups, vans, and RVs, including those with recreational trailers |
| 4 | Buses |
| 5 | 2-axle, 6-tire single units |
| 6 | 3-axle single units |
| 7 | 4-axle single units |
| 8 | 3-axle or 4-axle double unit |
| 9 | 5-axle double unit |
| 10 | 6-, 7-, or 8-axle double unit |
| 11 | 5-axle multiple unit |
| 12 | 6-axle multiple unit |
| 13 | 7-or-more-axle multiple unit |
| 14 | Vehicles that could not be classified |

APPENDIX D

VEHICLE COLLISION DATA

ICBC Collision Data

| City | Crash Type | Location | Year |
|-----------|------------|--|------|
| LADYSMITH | Casualty | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2011 |
| LADYSMITH | Casualty | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2012 |
| LADYSMITH | Casualty | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2014 |
| LADYSMITH | Casualty | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2015 |
| LADYSMITH | PDO | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2011 |
| LADYSMITH | PDO | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2012 |
| LADYSMITH | PDO | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2013 |
| LADYSMITH | PDO | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2014 |
| LADYSMITH | PDO | GROUHEL RD & TRANS-CANADA HWY & TURNING LANE | 2015 |
| LADYSMITH | Casualty | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2011 |
| LADYSMITH | Casualty | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2012 |
| LADYSMITH | Casualty | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2013 |
| LADYSMITH | Casualty | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2014 |
| LADYSMITH | Casualty | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2015 |
| LADYSMITH | PDO | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2011 |
| LADYSMITH | PDO | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2012 |
| LADYSMITH | PDO | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2013 |
| LADYSMITH | PDO | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2014 |
| LADYSMITH | PDO | 1ST AVE & ESPLANADE & LUDLOW RD & TRANS-CANADA HWY | 2015 |
| LADYSMITH | Casualty | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2012 |
| LADYSMITH | Casualty | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2013 |
| LADYSMITH | Casualty | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2014 |
| LADYSMITH | Casualty | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2015 |
| LADYSMITH | PDO | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2011 |
| LADYSMITH | PDO | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2012 |
| LADYSMITH | PDO | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2014 |
| LADYSMITH | PDO | ESPLANADE & ROBERTS ST & TRANSFER BEACH BLVD & TURNING LANE | 2015 |
| LADYSMITH | Casualty | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2011 |
| LADYSMITH | Casualty | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2012 |
| LADYSMITH | Casualty | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2013 |
| LADYSMITH | Casualty | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2014 |



ICBC Collision Data

| City | Crash Type | Location | Year |
|-----------|------------|--|------|
| LADYSMITH | Casualty | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2015 |
| LADYSMITH | PDO | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2011 |
| LADYSMITH | PDO | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2012 |
| LADYSMITH | PDO | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2013 |
| LADYSMITH | PDO | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2014 |
| LADYSMITH | PDO | N DAVIS RD & N DAVIS RD OFFRAMP & N DAVIS RD ONRAMP & TRANS-CANADA | 2015 |
| LADYSMITH | Casualty | EDGELOW RD & EDGELOW RD S & TRANS-CANADA HWY | 2011 |
| LADYSMITH | Casualty | EDGELOW RD & EDGELOW RD S & TRANS-CANADA HWY | 2012 |
| LADYSMITH | Casualty | EDGELOW RD & EDGELOW RD S & TRANS-CANADA HWY | 2013 |
| LADYSMITH | PDO | EDGELOW RD & EDGELOW RD S & TRANS-CANADA HWY | 2012 |
| LADYSMITH | PDO | EDGELOW RD & EDGELOW RD S & TRANS-CANADA HWY | 2013 |
| LADYSMITH | PDO | EDGELOW RD & EDGELOW RD S & TRANS-CANADA HWY | 2015 |



| CLSN YEAR | TOTAL INJ | TOTAL KLD | SPEED LIM | LOCN_TYPE | ROAD SURF | WEATHER | DIAGRAM | PREACTN1 Description | PREACTN2 Description | TYPE2ND1 Description | CONTRB11 Description | CONTRB12 Description | VEHDIR1 | VEHDIR2 | ON | AT |
|-----------|-----------|-----------|-----------|-------------------------|-----------|---------------|--------------------|-------------------------|-------------------------|----------------------------|---------------------------------|---------------------------------|---------|---------|--------------|-----------------------|
| 2012 | 1 | 0 | 90 | At intersection | Dry | Clear | Left turn rear end | Going straight ahead | Swerving | Motorcycle | Unknown | Not applicable | North | North | 1 HWY | THICKE / EDGELOW |
| 2012 | 5 | 0 | 90 | At intersection | Wet | Raining | Rear end | Slowing or stopping | Going straight ahead | Other motor vehicle | Exceeding speed limit | Road condition (ice,snow,slush) | North | North | 1 HWY | EDGELOW RD |
| 2012 | 1 | 0 | 90 | Public Driveway | Snow | Snowing/sleet | Off road right | Spinning | | Ran off/left roadway | Road condition (ice,snow,slush) | Driving too fast for condition | North | | 1 HWY | EDGELOW RD |
| 2012 | 2 | 0 | 70 | At intersection | Dry | Clear | Intersection 90' | Making left turn | Going straight ahead | Other motor vehicle | Failing to yield right of way | Not applicable | East | South | 1 HWY | GROUHEL |
| 2012 | 1 | 0 | 90 | Btwn intersection/exchs | Wet | Cloudy | Off road left | Swerving | | Ran off/left roadway | Wild animal | Not applicable | North | | 1 HWY | BAKER |
| 2012 | 2 | 0 | 90 | Btwn intersection/exchs | Slush | Snowing/sleet | Off road left | Going straight ahead | | Curbing | Road condition (ice,snow,slush) | Not applicable | South | | 1 HWY | WESTDOWNE RD |
| 2012 | 1 | 0 | 90 | At intersection | Wet | Raining | Rear end | Slowing or stopping | Going straight ahead | Other motor vehicle | Unknown | Not applicable | North | North | 1 HWY | EDGELOW RD |
| 2012 | 1 | 0 | 90 | Btwn intersection/exchs | Wet | Clear | Other | Swerving | | Other | Exceeding speed limit | Wild animal | South | | 1 HWY | EDGELOW RD |
| 2013 | 1 | 0 | 90 | At intersection | Dry | Clear | Rear end | Stopped in traffic | Going straight ahead | Other motor vehicle | Not applicable | Not applicable | North | North | 1 HWY | EDGELOW RD N |
| 2013 | 1 | 0 | 90 | At intersection | Dry | Clear | Rear end | Going straight ahead | Stopped in traffic | Other motor vehicle | Driver inattentive | Following too closely | North | North | 1 HWY | EDGELOW |
| 2013 | 1 | 0 | 90 | Btwn intersection/exchs | Dry | Clear | Off road left | Yaw | | Guard rail/traffic barrier | Tires-failure/inadequate | Not applicable | North | | 1 HWY | BAKER RD |
| 2013 | 1 | 0 | 30 | Entr/acceleration lane | Wet | Raining | Rear end | Slowing or stopping | Slowing or stopping | Other motor vehicle | Road condition (ice,snow,slush) | Weather (fog,sleet,rain,snow) | Unknown | Unknown | CHEMAINUS RD | N. DAVIS RD |
| 2013 | 4 | 0 | 70 | At intersection | Dry | Cloudy | Rear end | Going straight ahead | Going straight ahead | Other motor vehicle | Sudden loss of consciousness | Illness** | South | South | 1 HWY | 1ST |
| 2014 | 6 | 0 | 90 | At intersection | Wet | Raining | Rear end | Slowing or stopping | Going straight ahead | Other motor vehicle | Not applicable | Not applicable | South | South | 1 HWY | DAVIS RD N |
| 2014 | 1 | 0 | 70 | At intersection | Dry | Cloudy | Rear end | Stopped in traffic | Going straight ahead | Other motor vehicle | Driver inattentive | Not applicable | North | North | 1 HWY | ROBERTS ST |
| 2014 | 1 | 0 | 70 | At intersection | Dry | Clear | Other | Going straight ahead | | Curbing | Driver inattentive | Not applicable | North | | 1 HWY | ROBERTS ST |
| 2014 | 2 | 0 | 70 | At intersection | Dry | Clear | Rear end | Slowing or stopping | Going straight ahead | Other motor vehicle | Not applicable | Not applicable | North | North | 1 HWY | TRANSFER BEACH BLVD |
| 2014 | 6 | 0 | 70 | At intersection | Dry | Clear | Other | Making left turn | Going straight ahead | Other motor vehicle | Improper turning | Not applicable | South | South | 1 HWY | GROUHEL RD |
| 2014 | 1 | 0 | 70 | Btwn intersection/exchs | Wet | Raining | Rear end | Stopped in traffic | Stopped in traffic | Other motor vehicle | Following too closely | Not applicable | North | North | 1 HWY | LUDLOW RD |
| 2014 | 4 | 0 | 70 | At intersection | Dry | Clear | Left turn 90' | Making left turn | Going straight ahead | Other motor vehicle | Driver error/confusion | Failing to yield right of way | North | South | 1 HWY | 1ST |
| 2014 | 4 | 0 | 90 | Btwn intersection/exchs | Dry | Clear | Rear end | Going straight ahead | Going straight ahead | Other motor vehicle | Driver inattentive | Following too closely | South | South | 1 HWY | N DAVIS |
| 2015 | 1 | 0 | 90 | Btwn intersection/exchs | Dry | Clear | Rear end | Avoiding object on road | Avoiding object on road | Other motor vehicle | Driver internal/ external distr | Obstruction/debris on road | North | North | 1 HWY | S. DAVIS RD |
| 2015 | 1 | 0 | 90 | Btwn intersection/exchs | Wet | Raining | Unknown | Going straight ahead | | Animal | Wild animal | Weather (fog,sleet,rain,snow) | South | | 1 HWY | N. DAVIS RD |
| 2015 | 2 | 0 | 90 | Entr/acceleration lane | Dry | Clear | Rear end | Going straight ahead | Going straight ahead | Other motor vehicle | Driver error/confusion | Not applicable | North | North | 1 HWY | CHEMAINUS RD(N DAVIS) |
| 2015 | 1 | 0 | 70 | At intersection | Dry | Clear | Left turn head on | Changing lanes | | Over turned | Obstruction/debris on road | Tires-failure/inadequate | South | | 1 HWY | LUDLOW RD |
| 2015 | 1 | 0 | 70 | Entrance intersection | Dry | Clear | Rear end | Starting from traffic | Starting from traffic | Other motor vehicle | Driver inattentive | Not applicable | South | South | 1 HWY | 1ST AVE |
| 2015 | 1 | 0 | 70 | At intersection | Wet | Clear | Side swipe | Going straight ahead | Making left turn | Other motor vehicle | Not applicable | Not applicable | South | North | 1 HWY | ROBERTS ST |



| CLSN YEAR | TOTAL INJ | TOTAL KLD | SPEED LIM | LOCN_TYPE | ROAD SURF | WEATHER | DIAGRAM | PRACTN1 Description | PRACTN2 Description | TYPE2ND1 Description | CONTRB11 Description | CONTRB12 Description | VEHDIR1 | VEHDIR2 | ON | AT |
|-----------|-----------|-----------|-----------|-------------------------|-----------|---------|------------------|----------------------|----------------------|----------------------------|---------------------------------|---------------------------------|---------|---------|----------------------|--------------|
| 2015 | 1 | 0 | 90 | Btwn intersection/exchs | Dry | Clear | Rear end | Merging | Merging | Other motor vehicle | Insufficient traffic control | Not applicable | South | South | 1 HWY | DAVIS RD N |
| 2015 | 1 | 0 | 90 | Btwn intersection/exchs | Wet | Clear | Overtaking | Swerving | Going straight ahead | Other motor vehicle | Driving too fast for condition | Cutting in | South | South | 1 HWY | N DAVIS RD |
| 2015 | 1 | 0 | 90 | Btwn intersection/exchs | Dry | Clear | Off road left | Unknown | | Unknown | Unknown | Not applicable | South | | 1 HWY | WESTDOWNE RD |
| 2016 | 1 | 0 | 90 | Btwn intersection/exchs | Wet | Raining | Off road right | Going straight ahead | | Building/wall | Driver inattentive | Road condition (ice,snow,slush) | Unknown | | 1 HWY | WESTDOWNE RD |
| 2016 | 1 | 0 | 90 | At intersection | Dry | Clear | Rear end | Going straight ahead | Going straight ahead | Other motor vehicle | Driver inattentive | Not applicable | North | North | 1 HWY | EDGELOW RD |
| 2016 | 1 | 0 | 90 | Btwn intersection/exchs | Ice | Raining | Unknown | Going straight ahead | | Building/wall | Driver inattentive | Road condition (ice,snow,slush) | North | | 1 HWY | S. DAVIS RD |
| 2016 | 1 | 0 | 90 | At intersection | Dry | Cloudy | Rear end | Unknown | Going straight ahead | Other motor vehicle | Driver internal/ external distr | Driver inattentive | South | South | 1 HWY | N DAVIS RD |
| 2016 | 1 | 0 | 90 | Btwn intersection/exchs | Ice | Cloudy | Off road left | Going straight ahead | | Guard rail/traffic barrier | Road condition (ice,snow,slush) | Not applicable | North | | HOLLAND CREEK BRIDGE | 1 HWY |
| 2016 | 2 | 0 | 70 | At intersection | Dry | Clear | Left turn 90' | Going straight ahead | Making left turn | Other motor vehicle | Not applicable | Not applicable | South | West | 1 HWY | ROBERTS ST |
| 2016 | 1 | 0 | 70 | At intersection | Dry | Clear | Left turn 90' | Going straight ahead | Making left turn | Other motor vehicle | Unknown | Not applicable | North | South | 1 HWY | LUDLOW |
| 2016 | 2 | 0 | 70 | At intersection | Dry | Clear | Head on | Making right turn | Going straight ahead | Other motor vehicle | Driver inattentive | Failing to yield right of way | North | South | CHEMAINUS RD | 1ST AVE |
| 2016 | 2 | 0 | 70 | At intersection | Dry | Cloudy | Rear end | Stopped in traffic | Stopped in traffic | Other motor vehicle | Not applicable | Not applicable | North | North | 1 HWY | 1ST |
| 2016 | 1 | 0 | 90 | Btwn intersection/exchs | Wet | Raining | Off road right | Going straight ahead | | Guard rail/traffic barrier | Driver inattentive | Driving too fast for condition | North | | 1 HWY | GROUHEL RD |
| 2016 | 3 | 0 | 70 | At intersection | Wet | Cloudy | Intersection 90' | Going straight ahead | Making left turn | Other motor vehicle | Not applicable | Not applicable | South | North | 1 HWY | GROUHEL RD |
| 2016 | 1 | 0 | 70 | Btwn intersection/exchs | Ice | Clear | Unknown | Going straight ahead | | Raised traffic island | Driver inattentive | Driving too fast for condition | South | | 1 HWY | KITCHENER ST |
| 2016 | 1 | 0 | 70 | At intersection | Wet | Cloudy | Other | Going straight ahead | Going straight ahead | Other motor vehicle | Not applicable | Not applicable | South | East | 1 HWY | ROBERTS ST |
| 2016 | 1 | 0 | 70 | At intersection | Dry | Cloudy | Intersection 90' | Making right turn | Going straight ahead | Other motor vehicle | Failing to yield right of way | Not applicable | East | South | ESPLANADE | 1 HWY |
| 2016 | 1 | 0 | 90 | Btwn intersection/exchs | Dry | Clear | Rear end | Stopped in traffic | Going straight ahead | Other motor vehicle | Not applicable | Not applicable | South | South | 1 HWY | N DAVIS |
| 2016 | 2 | 0 | 90 | Btwn intersection/exchs | Wet | Raining | Off road left | Changing lanes | | Ran off/left roadway | Road condition (ice,snow,slush) | Driving too fast for condition | South | | 1 HWY | N DAVIS RD |
| 2016 | 1 | 0 | 70 | At intersection | Wet | Raining | Rear end | Slowing or stopping | Slowing or stopping | Other motor vehicle | Road condition (ice,snow,slush) | Not applicable | South | South | 1 HWY | S DAVIS RD |
| 2016 | 3 | 0 | 90 | At intersection | Wet | Clear | Intersection 90' | Going straight ahead | Making left turn | Other motor vehicle | Driver inattentive | Glare-sunlight | South | East | 1 HWY | EDGELOW RD |

APPENDIX E

SYNCHRO ANALYSIS RESULTS

1: Hwy 1 & Grouhel Rd



| Movement | EBL | EBR | NBL | NBT | SBT | SBR | |
|-----------------------------------|------|------|-------|----------------------|------|------|------|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 23 | 23 | 16 | 902 | 922 | 19 | |
| Future Volume (Veh/h) | 23 | 23 | 16 | 902 | 922 | 19 | |
| Sign Control | Stop | | Free | | Free | | |
| Grade | 0% | | 0% | | 0% | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly flow rate (vph) | 25 | 25 | 17 | 980 | 1002 | 21 | |
| Pedestrians | | | | | | | |
| Lane Width (m) | | | | | | | |
| Walking Speed (m/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | | | | | | | |
| | | | | None | None | | |
| Median storage (veh) | | | | | | | |
| Upstream signal (m) | | | | | | | |
| pX, platoon unblocked | | | | | | | |
| vC, conflicting volume | 1526 | 501 | 1002 | | | | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | 1526 | 501 | 1002 | | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | | |
| tC, 2 stage (s) | | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | | |
| p0 queue free % | 76 | 95 | 98 | | | | |
| cM capacity (veh/h) | 106 | 515 | 687 | | | | |
| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
| Volume Total | 50 | 17 | 490 | 490 | 501 | 501 | 21 |
| Volume Left | 25 | 17 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 25 | 0 | 0 | 0 | 0 | 0 | 21 |
| cSH | 175 | 687 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.28 | 0.02 | 0.29 | 0.29 | 0.29 | 0.29 | 0.01 |
| Queue Length 95th (m) | 8.5 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (s) | 33.5 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | B | | | | | |
| Approach Delay (s) | 33.5 | 0.2 | 0.0 | | | | |
| Approach LOS | D | | | | | | |
| Intersection Summary | | | | | | | |
| Average Delay | | | 0.9 | | | | |
| Intersection Capacity Utilization | | | 35.5% | ICU Level of Service | A | | |
| Analysis Period (min) | | | 15 | | | | |

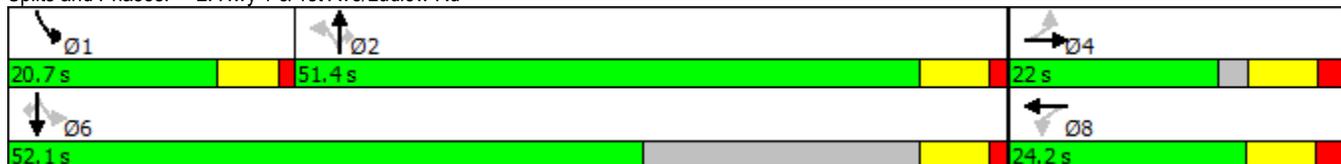
2: Hwy 1 & 1st Ave/Ludlow Rd

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|-----|-------|-------|------|-------|-------|-------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 225 | 39 | 48 | 32 | 22 | 29 | 18 | 670 | 51 | 44 | 765 | 146 |
| Future Volume (vph) | 225 | 39 | 48 | 32 | 22 | 29 | 18 | 670 | 51 | 44 | 765 | 146 |
| Satd. Flow (prot) | 1789 | 1713 | 0 | 1789 | 1883 | 1601 | 1789 | 3579 | 1601 | 1789 | 3579 | 1601 |
| Flt Permitted | 0.742 | | | 0.696 | | | 0.339 | | | 0.257 | | |
| Satd. Flow (perm) | 1398 | 1713 | 0 | 1308 | 1883 | 1601 | 638 | 3579 | 1601 | 484 | 3579 | 1601 |
| Satd. Flow (RTOR) | | 52 | | | | 185 | | | 112 | | | |
| Lane Group Flow (vph) | 245 | 94 | 0 | 35 | 24 | 32 | 20 | 728 | 55 | 48 | 832 | 159 |
| Turn Type | Perm | NA | | Perm | NA | Free | Perm | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | Free | 2 | | 2 | 6 | | 6 |
| Total Split (s) | 22.0 | 22.0 | | 24.2 | 24.2 | | 51.4 | 51.4 | 51.4 | 20.7 | 52.1 | 52.1 |
| Total Lost Time (s) | 7.0 | 7.0 | | 7.2 | 7.2 | | 6.4 | 6.4 | 6.4 | 5.7 | 6.4 | 6.4 |
| Act Effct Green (s) | 15.5 | 15.5 | | 15.2 | 15.2 | 60.6 | 24.8 | 24.8 | 24.8 | 32.1 | 31.3 | 31.3 |
| Actuated g/C Ratio | 0.26 | 0.26 | | 0.25 | 0.25 | 1.00 | 0.41 | 0.41 | 0.41 | 0.53 | 0.52 | 0.52 |
| v/c Ratio | 0.69 | 0.20 | | 0.11 | 0.05 | 0.02 | 0.08 | 0.50 | 0.08 | 0.12 | 0.45 | 0.18 |
| Control Delay | 36.9 | 13.7 | | 23.3 | 22.6 | 0.0 | 13.4 | 15.3 | 0.6 | 6.5 | 9.4 | 1.7 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.9 | 13.7 | | 23.3 | 22.6 | 0.0 | 13.4 | 15.3 | 0.6 | 6.5 | 9.4 | 1.7 |
| LOS | D | B | | C | C | A | B | B | A | A | A | A |
| Approach Delay | | 30.5 | | | 14.9 | | | 14.2 | | | 8.1 | |
| Approach LOS | | C | | | B | | | B | | | A | |
| Queue Length 50th (m) | 26.8 | 3.9 | | 3.3 | 2.2 | 0.0 | 1.5 | 34.8 | 0.0 | 2.3 | 27.0 | 0.0 |
| Queue Length 95th (m) | #71.6 | 16.2 | | 11.3 | 8.5 | 0.0 | 5.3 | 49.4 | 1.1 | 5.6 | 36.7 | 5.8 |
| Internal Link Dist (m) | | 181.2 | | | 128.9 | | | 325.9 | | | 168.6 | |
| Turn Bay Length (m) | 90.0 | | | 65.0 | | | 140.0 | | 130.0 | 160.0 | | |
| Base Capacity (vph) | 408 | 537 | | 378 | 544 | 1601 | 488 | 2737 | 1250 | 588 | 3473 | 1558 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.18 | | 0.09 | 0.04 | 0.02 | 0.04 | 0.27 | 0.04 | 0.08 | 0.24 | 0.10 |

Intersection Summary

Cycle Length: 96.3
 Actuated Cycle Length: 60.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 13.9
 Intersection LOS: B
 Intersection Capacity Utilization 66.9%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Hwy 1 & 1st Ave/Ludlow Rd



3: Hwy 1 & Roberts St

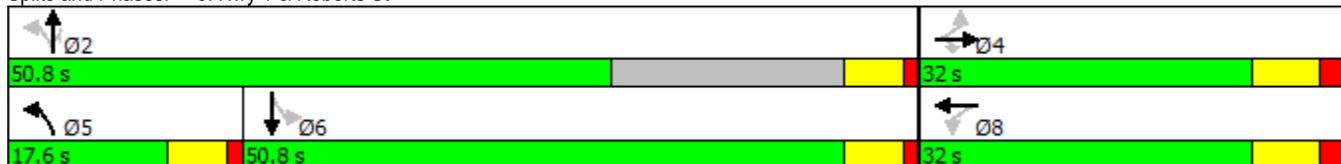


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|------|------|-------|------|-------|-------|------|-------|-------|-----|
| Lane Configurations | | ↕ | ↗ | | ↕ | ↗ | ↗ | ↕ | ↗ | ↗ | ↕ | ↕ |
| Traffic Volume (vph) | 51 | 20 | 51 | 8 | 11 | 13 | 93 | 739 | 22 | 21 | 817 | 19 |
| Future Volume (vph) | 51 | 20 | 51 | 8 | 11 | 13 | 93 | 739 | 22 | 21 | 817 | 19 |
| Satd. Flow (prot) | 0 | 1819 | 1601 | 0 | 3503 | 1601 | 1789 | 3579 | 1601 | 1789 | 3568 | 0 |
| Flt Permitted | | 0.774 | | | 0.817 | | 0.219 | | | 0.348 | | |
| Satd. Flow (perm) | 0 | 1450 | 1578 | 0 | 2921 | 1579 | 412 | 3579 | 1563 | 655 | 3568 | 0 |
| Satd. Flow (RTOR) | | | 89 | | | 165 | | | 43 | | 3 | |
| Lane Group Flow (vph) | 0 | 77 | 55 | 0 | 21 | 14 | 101 | 803 | 24 | 23 | 909 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Free | pm+pt | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | Free | 2 | | 2 | 6 | | |
| Total Split (s) | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | | 17.6 | 50.8 | 50.8 | 50.8 | 50.8 | |
| Total Lost Time (s) | | 7.0 | 7.0 | | 7.0 | | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | |
| Act Effct Green (s) | | 9.6 | 9.6 | | 9.6 | 62.8 | 44.2 | 45.9 | 45.9 | 34.9 | 34.9 | |
| Actuated g/C Ratio | | 0.15 | 0.15 | | 0.15 | 1.00 | 0.70 | 0.73 | 0.73 | 0.56 | 0.56 | |
| v/c Ratio | | 0.35 | 0.17 | | 0.05 | 0.01 | 0.21 | 0.31 | 0.02 | 0.06 | 0.46 | |
| Control Delay | | 32.7 | 4.2 | | 27.6 | 0.0 | 5.2 | 4.8 | 0.7 | 12.0 | 13.5 | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | | 32.7 | 4.2 | | 27.6 | 0.0 | 5.2 | 4.8 | 0.7 | 12.0 | 13.5 | |
| LOS | | C | A | | C | A | A | A | A | B | B | |
| Approach Delay | | 20.8 | | | 16.5 | | | 4.7 | | | 13.5 | |
| Approach LOS | | C | | | B | | | A | | | B | |
| Queue Length 50th (m) | | 8.3 | 0.0 | | 1.1 | 0.0 | 3.5 | 17.8 | 0.0 | 1.5 | 39.8 | |
| Queue Length 95th (m) | | 23.5 | 4.6 | | 4.5 | 0.0 | 9.0 | 31.2 | 1.1 | 6.0 | 67.4 | |
| Internal Link Dist (m) | | 31.8 | | | 57.5 | | | 328.8 | | | 196.7 | |
| Turn Bay Length (m) | | | 40.0 | | | 15.0 | 150.0 | | 85.0 | 115.0 | | |
| Base Capacity (vph) | | 612 | 717 | | 1233 | 1579 | 569 | 3314 | 1451 | 485 | 2643 | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | | 0.13 | 0.08 | | 0.02 | 0.01 | 0.18 | 0.24 | 0.02 | 0.05 | 0.34 | |

Intersection Summary

Cycle Length: 100.4
 Actuated Cycle Length: 62.8
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 10.0
 Intersection Capacity Utilization 63.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 3: Hwy 1 & Roberts St



4: Hwy 1 & N Davis Rd

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|------|-----|------|-------|------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 115 | 34 | 70 | 12 | 39 | 142 | 44 | 596 | 5 | 55 | 695 | 106 |
| Future Volume (vph) | 115 | 34 | 70 | 12 | 39 | 142 | 44 | 596 | 5 | 55 | 695 | 106 |
| Satd. Flow (prot) | 1610 | 1524 | 0 | 0 | 1675 | 1441 | 1610 | 3221 | 1441 | 1610 | 3221 | 1441 |
| Flt Permitted | 0.409 | | | | 0.885 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 689 | 1524 | 0 | 0 | 1500 | 1422 | 1610 | 3221 | 1441 | 1610 | 3221 | 1441 |
| Satd. Flow (RTOR) | | 76 | | | | 198 | | | 145 | | | 115 |
| Lane Group Flow (vph) | 125 | 113 | 0 | 0 | 55 | 154 | 48 | 648 | 5 | 60 | 755 | 115 |
| Turn Type | pm+pt | NA | | Perm | NA | Free | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | Free | | | 2 | | | 6 |
| Total Split (s) | 15.2 | 30.4 | | 36.4 | 36.4 | | 25.6 | 55.4 | 55.4 | 33.5 | 62.9 | 62.9 |
| Total Lost Time (s) | 5.2 | 5.4 | | | 5.4 | | 5.6 | 6.8 | 6.8 | 5.5 | 6.8 | 6.8 |
| Act Effct Green (s) | 20.7 | 20.5 | | | 9.3 | 74.6 | 8.5 | 29.8 | 29.8 | 9.1 | 33.1 | 33.1 |
| Actuated g/C Ratio | 0.28 | 0.27 | | | 0.12 | 1.00 | 0.11 | 0.40 | 0.40 | 0.12 | 0.44 | 0.44 |
| v/c Ratio | 0.40 | 0.24 | | | 0.30 | 0.11 | 0.26 | 0.50 | 0.01 | 0.31 | 0.53 | 0.16 |
| Control Delay | 27.7 | 11.9 | | | 40.2 | 0.2 | 40.0 | 20.9 | 0.0 | 39.9 | 19.5 | 4.3 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.7 | 11.9 | | | 40.2 | 0.2 | 40.0 | 20.9 | 0.0 | 39.9 | 19.5 | 4.3 |
| LOS | C | B | | | D | A | D | C | A | D | B | A |
| Approach Delay | | 20.2 | | | 10.7 | | | 22.1 | | | 18.9 | |
| Approach LOS | | C | | | B | | | C | | | B | |
| Queue Length 50th (m) | 13.9 | 3.9 | | | 7.7 | 0.0 | 6.7 | 39.7 | 0.0 | 8.4 | 47.6 | 0.0 |
| Queue Length 95th (m) | 33.5 | 18.1 | | | 21.3 | 0.0 | 19.3 | 62.8 | 0.0 | 22.5 | 73.7 | 9.6 |
| Internal Link Dist (m) | | 71.3 | | | 45.7 | | | 366.0 | | | 230.4 | |
| Turn Bay Length (m) | | | | | | | 220.0 | | 185.0 | 250.0 | | 195.0 |
| Base Capacity (vph) | 334 | 1024 | | | 678 | 1422 | 470 | 2186 | 1024 | 658 | 2436 | 1118 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.11 | | | 0.08 | 0.11 | 0.10 | 0.30 | 0.00 | 0.09 | 0.31 | 0.10 |

Intersection Summary

Cycle Length: 140.5
 Actuated Cycle Length: 74.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 19.3
 Intersection Capacity Utilization 54.9%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: Hwy 1 & N Davis Rd



5: Hwy 1 & Davis Rd

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|------|-------|------|----------------------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 13 | 0 | 44 | 3 | 0 | 0 | 13 | 638 | 1 | 5 | 776 | 11 |
| Future Volume (Veh/h) | 13 | 0 | 44 | 3 | 0 | 0 | 13 | 638 | 1 | 5 | 776 | 11 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 14 | 0 | 48 | 3 | 0 | 0 | 14 | 693 | 1 | 5 | 843 | 12 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (m) | | | | | | | | | | | | |
| Walking Speed (m/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage (veh) | | | | | | | | | | | | |
| Upstream signal (m) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1228 | 1574 | 422 | 1152 | 1574 | 346 | 843 | | | 693 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1228 | 1574 | 422 | 1152 | 1574 | 346 | 843 | | | 693 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 89 | 100 | 92 | 98 | 100 | 100 | 98 | | | 99 | | |
| cM capacity (veh/h) | 132 | 106 | 581 | 137 | 106 | 650 | 789 | | | 898 | | |
| Direction, Lane # | EB 1 | WB 1 | WB 2 | NB 1 | NB 2 | NB 3 | NB 4 | SB 1 | SB 2 | SB 3 | SB 4 | |
| Volume Total | 62 | 3 | 0 | 14 | 346 | 346 | 1 | 5 | 422 | 422 | 12 | |
| Volume Left | 14 | 3 | 0 | 14 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | |
| Volume Right | 48 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 12 | |
| cSH | 328 | 137 | 1700 | 789 | 1700 | 1700 | 1700 | 898 | 1700 | 1700 | 1700 | |
| Volume to Capacity | 0.19 | 0.02 | 0.00 | 0.02 | 0.20 | 0.20 | 0.00 | 0.01 | 0.25 | 0.25 | 0.01 | |
| Queue Length 95th (m) | 5.2 | 0.5 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | |
| Control Delay (s) | 18.5 | 31.8 | 0.0 | 9.6 | 0.0 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 | 0.0 | |
| Lane LOS | C | D | A | A | | | | A | | | | |
| Approach Delay (s) | 18.5 | 31.8 | | 0.2 | | | | 0.1 | | | | |
| Approach LOS | C | D | | | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| Average Delay | | | 0.9 | | | | | | | | | |
| Intersection Capacity Utilization | | | 41.0% | | ICU Level of Service | | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |

6: Hwy 1 & Thicke Rd/Edgelow Rd

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|-----|------|------|-----|-------|-------|-----|-------|--------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 21 | 0 | 1 | 4 | 0 | 4 | 4 | 622 | 3 | 4 | 819 | 6 |
| Future Volume (vph) | 21 | 0 | 1 | 4 | 0 | 4 | 4 | 622 | 3 | 4 | 819 | 6 |
| Satd. Flow (prot) | 0 | 1786 | 0 | 0 | 1713 | 0 | 1789 | 3575 | 0 | 1789 | 3579 | 1601 |
| Flt Permitted | | | | | | | 0.320 | | | 0.393 | | |
| Satd. Flow (perm) | 0 | 1872 | 0 | 0 | 1755 | 0 | 603 | 3575 | 0 | 740 | 3579 | 1601 |
| Satd. Flow (RTOR) | | 47 | | | 47 | | | 1 | | | | 35 |
| Lane Group Flow (vph) | 0 | 24 | 0 | 0 | 8 | 0 | 4 | 679 | 0 | 4 | 890 | 7 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | 6 |
| Total Split (s) | 25.7 | 25.7 | | 25.7 | 25.7 | | 57.4 | 57.4 | | 58.1 | 58.1 | 58.1 |
| Total Lost Time (s) | | 5.7 | | | 5.7 | | 6.6 | 6.6 | | 6.6 | 6.6 | 6.6 |
| Act Effct Green (s) | | 7.0 | | | 7.0 | | 39.7 | 39.7 | | 39.7 | 39.7 | 39.7 |
| Actuated g/C Ratio | | 0.16 | | | 0.16 | | 0.92 | 0.92 | | 0.92 | 0.92 | 0.92 |
| v/c Ratio | | 0.07 | | | 0.02 | | 0.01 | 0.21 | | 0.01 | 0.27 | 0.00 |
| Control Delay | | 4.1 | | | 0.1 | | 2.5 | 1.7 | | 2.5 | 1.9 | 0.2 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 4.1 | | | 0.1 | | 2.5 | 1.7 | | 2.5 | 1.9 | 0.2 |
| LOS | | A | | | A | | A | A | | A | A | A |
| Approach Delay | | 4.1 | | | 0.1 | | | 1.7 | | | 1.9 | |
| Approach LOS | | A | | | A | | | A | | | A | |
| Queue Length 50th (m) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Queue Length 95th (m) | | 2.9 | | | 0.0 | | 0.9 | 19.1 | | 0.9 | 26.3 | 0.2 |
| Internal Link Dist (m) | | 76.7 | | | 10.6 | | | 788.3 | | | 1015.2 | |
| Turn Bay Length (m) | | | | | | | 160.0 | | | 175.0 | | 175.0 |
| Base Capacity (vph) | | 893 | | | 839 | | 603 | 3575 | | 740 | 3579 | 1601 |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.03 | | | 0.01 | | 0.01 | 0.19 | | 0.01 | 0.25 | 0.00 |

Intersection Summary

Cycle Length: 83.8
 Actuated Cycle Length: 43.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.27
 Intersection Signal Delay: 1.8
 Intersection Capacity Utilization 54.9%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 6: Hwy 1 & Thicke Rd/Edgelow Rd



1: Hwy 1 & Grouhel Rd



| Movement | EBL | EBR | NBL | NBT | SBT | SBR | |
|-----------------------------------|-------|------|------|----------------------|------|------|------|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 31 | 19 | 26 | 1489 | 1416 | 48 | |
| Future Volume (Veh/h) | 31 | 19 | 26 | 1489 | 1416 | 48 | |
| Sign Control | Stop | | | Free | Free | | |
| Grade | 0% | | | 0% | 0% | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly flow rate (vph) | 34 | 21 | 28 | 1618 | 1539 | 52 | |
| Pedestrians | | | | | | | |
| Lane Width (m) | | | | | | | |
| Walking Speed (m/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | | | | None | None | | |
| Median storage (veh) | | | | | | | |
| Upstream signal (m) | | | | | | | |
| pX, platoon unblocked | | | | | | | |
| vC, conflicting volume | 2404 | 770 | 1539 | | | | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | 2404 | 770 | 1539 | | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | | |
| tC, 2 stage (s) | | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | | |
| p0 queue free % | 0 | 94 | 93 | | | | |
| cM capacity (veh/h) | 26 | 344 | 428 | | | | |
| Direction, Lane # | | | | | | | |
| | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
| Volume Total | 55 | 28 | 809 | 809 | 770 | 770 | 52 |
| Volume Left | 34 | 28 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 21 | 0 | 0 | 0 | 0 | 0 | 52 |
| cSH | 40 | 428 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 1.38 | 0.07 | 0.48 | 0.48 | 0.45 | 0.45 | 0.03 |
| Queue Length 95th (m) | 42.4 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Control Delay (s) | 432.5 | 14.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | F | B | | | | | |
| Approach Delay (s) | 432.5 | 0.2 | | | 0.0 | | |
| Approach LOS | F | | | | | | |
| Intersection Summary | | | | | | | |
| Average Delay | 7.3 | | | | | | |
| Intersection Capacity Utilization | 51.2% | | | ICU Level of Service | A | | |
| Analysis Period (min) | 15 | | | | | | |

2: Hwy 1 & 1st Ave/Ludlow Rd



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|--------|-------|-----|-------|-------|------|-------|-------|-------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 255 | 36 | 32 | 70 | 79 | 23 | 17 | 1226 | 48 | 38 | 1101 | 242 |
| Future Volume (vph) | 255 | 36 | 32 | 70 | 79 | 23 | 17 | 1226 | 48 | 38 | 1101 | 242 |
| Satd. Flow (prot) | 1789 | 1739 | 0 | 1789 | 1883 | 1601 | 1789 | 3579 | 1601 | 1789 | 3579 | 1601 |
| Flt Permitted | 0.701 | | | 0.709 | | | 0.235 | | | 0.100 | | |
| Satd. Flow (perm) | 1320 | 1739 | 0 | 1334 | 1883 | 1601 | 443 | 3579 | 1565 | 188 | 3579 | 1601 |
| Satd. Flow (RTOR) | | 35 | | | | 185 | | | 112 | | | 263 |
| Lane Group Flow (vph) | 277 | 74 | 0 | 76 | 86 | 25 | 18 | 1333 | 52 | 41 | 1197 | 263 |
| Turn Type | Perm | NA | | Perm | NA | Free | Perm | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | Free | 2 | | 2 | 6 | | 6 |
| Total Split (s) | 22.0 | 22.0 | | 24.2 | 24.2 | | 51.4 | 51.4 | 51.4 | 20.7 | 52.1 | 52.1 |
| Total Lost Time (s) | 7.0 | 7.0 | | 7.2 | 7.2 | | 6.4 | 6.4 | 6.4 | 5.7 | 6.4 | 6.4 |
| Act Effct Green (s) | 15.4 | 15.4 | | 15.2 | 15.2 | 76.0 | 40.3 | 40.3 | 40.3 | 47.5 | 46.8 | 46.8 |
| Actuated g/C Ratio | 0.20 | 0.20 | | 0.20 | 0.20 | 1.00 | 0.53 | 0.53 | 0.53 | 0.62 | 0.62 | 0.62 |
| v/c Ratio | 1.04 | 0.19 | | 0.29 | 0.23 | 0.02 | 0.08 | 0.70 | 0.06 | 0.16 | 0.54 | 0.24 |
| Control Delay | 101.9 | 19.8 | | 33.5 | 31.6 | 0.0 | 11.2 | 16.4 | 0.1 | 6.1 | 8.9 | 1.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 101.9 | 19.8 | | 33.5 | 31.6 | 0.0 | 11.2 | 16.4 | 0.1 | 6.1 | 8.9 | 1.3 |
| LOS | F | B | | C | C | A | B | B | A | A | A | A |
| Approach Delay | | 84.6 | | | 28.1 | | | 15.7 | | | 7.5 | |
| Approach LOS | | F | | | C | | | B | | | A | |
| Queue Length 50th (m) | ~55.2 | 5.4 | | 11.0 | 12.3 | 0.0 | 1.4 | 80.7 | 0.0 | 1.9 | 44.7 | 0.0 |
| Queue Length 95th (m) | #102.0 | 16.8 | | 23.6 | 25.3 | 0.0 | 4.8 | 106.6 | 0.3 | 4.8 | 57.8 | 6.7 |
| Internal Link Dist (m) | | 181.2 | | | 128.9 | | | 325.9 | | | 168.6 | |
| Turn Bay Length (m) | 90.0 | | | 65.0 | | | 140.0 | | 130.0 | 160.0 | | |
| Base Capacity (vph) | 307 | 431 | | 306 | 432 | 1601 | 269 | 2177 | 996 | 442 | 3078 | 1413 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.17 | | 0.25 | 0.20 | 0.02 | 0.07 | 0.61 | 0.05 | 0.09 | 0.39 | 0.19 |

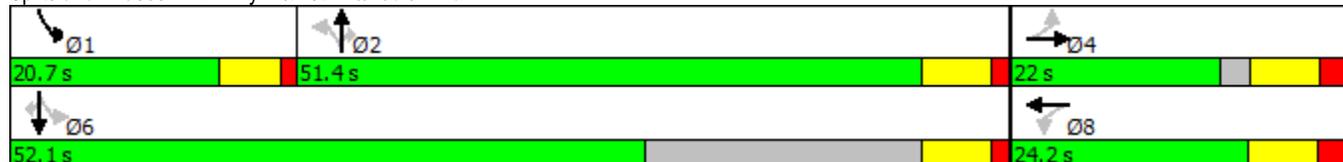
Intersection Summary

Cycle Length: 96.3
 Actuated Cycle Length: 76
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 19.8
 Intersection LOS: B
 Intersection Capacity Utilization 65.9%
 ICU Level of Service C
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Hwy 1 & 1st Ave/Ludlow Rd



3: Hwy 1 & Roberts St

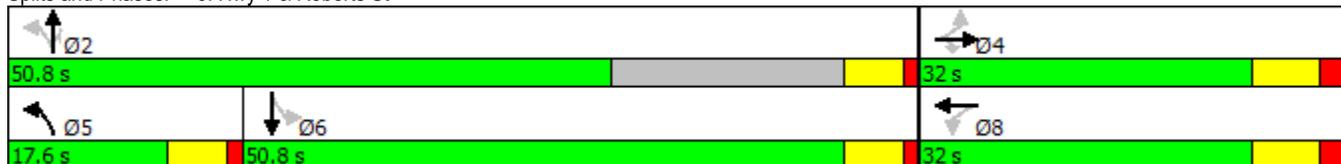


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|------|------|-------|------|-------|-------|------|-------|-------|-----|
| Lane Configurations | | ↕ | ↗ | | ↕ | ↗ | ↗ | ↕ | ↗ | ↗ | ↕ | ↕ |
| Traffic Volume (vph) | 73 | 15 | 93 | 39 | 26 | 39 | 142 | 1236 | 39 | 29 | 1195 | 41 |
| Future Volume (vph) | 73 | 15 | 93 | 39 | 26 | 39 | 142 | 1236 | 39 | 29 | 1195 | 41 |
| Satd. Flow (prot) | 0 | 1808 | 1601 | 0 | 3475 | 1601 | 1789 | 3579 | 1601 | 1789 | 3557 | 0 |
| Flt Permitted | | 0.711 | | | 0.764 | | 0.094 | | | 0.203 | | |
| Satd. Flow (perm) | 0 | 1322 | 1565 | 0 | 2719 | 1576 | 177 | 3579 | 1541 | 381 | 3557 | 0 |
| Satd. Flow (RTOR) | | | 101 | | | 165 | | | 43 | | 4 | |
| Lane Group Flow (vph) | 0 | 95 | 101 | 0 | 70 | 42 | 154 | 1343 | 42 | 32 | 1344 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Free | pm+pt | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | Free | 2 | | 2 | 6 | | |
| Total Split (s) | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | | 17.6 | 50.8 | 50.8 | 50.8 | 50.8 | |
| Total Lost Time (s) | | 7.0 | 7.0 | | 7.0 | | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | |
| Act Effct Green (s) | | 11.4 | 11.4 | | 11.4 | 81.3 | 57.1 | 57.1 | 57.1 | 41.7 | 41.7 | |
| Actuated g/C Ratio | | 0.14 | 0.14 | | 0.14 | 1.00 | 0.70 | 0.70 | 0.70 | 0.51 | 0.51 | |
| v/c Ratio | | 0.52 | 0.33 | | 0.18 | 0.03 | 0.49 | 0.53 | 0.04 | 0.16 | 0.74 | |
| Control Delay | | 44.5 | 10.5 | | 33.5 | 0.0 | 13.8 | 7.0 | 1.6 | 14.6 | 19.1 | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | | 44.5 | 10.5 | | 33.5 | 0.0 | 13.8 | 7.0 | 1.6 | 14.6 | 19.1 | |
| LOS | | D | B | | C | A | B | A | A | B | B | |
| Approach Delay | | 27.0 | | | 20.9 | | | 7.5 | | | 19.0 | |
| Approach LOS | | C | | | C | | | A | | | B | |
| Queue Length 50th (m) | | 14.5 | 0.0 | | 5.3 | 0.0 | 6.4 | 42.7 | 0.0 | 2.5 | 79.2 | |
| Queue Length 95th (m) | | 29.8 | 12.9 | | 11.3 | 0.0 | 24.1 | 71.2 | 2.8 | 8.9 | 125.0 | |
| Internal Link Dist (m) | | 31.8 | | | 57.5 | | | 328.8 | | | 196.7 | |
| Turn Bay Length (m) | | | 40.0 | | | 15.0 | 150.0 | | 85.0 | 115.0 | | |
| Base Capacity (vph) | | 413 | 558 | | 850 | 1576 | 366 | 2811 | 1219 | 215 | 2013 | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | | 0.23 | 0.18 | | 0.08 | 0.03 | 0.42 | 0.48 | 0.03 | 0.15 | 0.67 | |

Intersection Summary

Cycle Length: 100.4
 Actuated Cycle Length: 81.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 14.0
 Intersection Capacity Utilization 79.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 3: Hwy 1 & Roberts St



4: Hwy 1 & N Davis Rd

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|------|-----|------|-------|-------|-------|--------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 173 | 51 | 104 | 11 | 66 | 156 | 128 | 1122 | 23 | 183 | 928 | 235 |
| Future Volume (vph) | 173 | 51 | 104 | 11 | 66 | 156 | 128 | 1122 | 23 | 183 | 928 | 235 |
| Satd. Flow (prot) | 1610 | 1524 | 0 | 0 | 1683 | 1441 | 1610 | 3221 | 1441 | 1610 | 3221 | 1441 |
| Flt Permitted | 0.456 | | | | 0.922 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 767 | 1524 | 0 | 0 | 1563 | 1421 | 1610 | 3221 | 1407 | 1609 | 3221 | 1441 |
| Satd. Flow (RTOR) | | 78 | | | | 198 | | | 145 | | | 255 |
| Lane Group Flow (vph) | 188 | 168 | 0 | 0 | 84 | 170 | 139 | 1220 | 25 | 199 | 1009 | 255 |
| Turn Type | pm+pt | NA | | Perm | NA | Free | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | Free | | | 2 | | | 6 |
| Total Split (s) | 15.2 | 30.4 | | 36.4 | 36.4 | | 25.6 | 55.4 | 55.4 | 33.5 | 62.9 | 62.9 |
| Total Lost Time (s) | 5.2 | 5.4 | | | 5.4 | | 5.6 | 6.8 | 6.8 | 5.5 | 6.8 | 6.8 |
| Act Effct Green (s) | 23.8 | 23.6 | | | 11.3 | 110.6 | 14.7 | 49.9 | 49.9 | 19.1 | 54.2 | 54.2 |
| Actuated g/C Ratio | 0.22 | 0.21 | | | 0.10 | 1.00 | 0.13 | 0.45 | 0.45 | 0.17 | 0.49 | 0.49 |
| v/c Ratio | 0.78 | 0.43 | | | 0.53 | 0.12 | 0.65 | 0.84 | 0.04 | 0.72 | 0.64 | 0.31 |
| Control Delay | 61.5 | 24.0 | | | 61.8 | 0.2 | 62.0 | 35.6 | 0.1 | 59.2 | 25.1 | 3.5 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.5 | 24.0 | | | 61.8 | 0.2 | 62.0 | 35.6 | 0.1 | 59.2 | 25.1 | 3.5 |
| LOS | E | C | | | E | A | E | D | A | E | C | A |
| Approach Delay | | 43.8 | | | 20.5 | | | 37.6 | | | 26.0 | |
| Approach LOS | | D | | | C | | | D | | | C | |
| Queue Length 50th (m) | 35.8 | 16.1 | | | 17.8 | 0.0 | 29.2 | 126.0 | 0.0 | 41.7 | 87.5 | 0.0 |
| Queue Length 95th (m) | #67.2 | 38.0 | | | 35.9 | 0.0 | 53.3 | #202.9 | 0.0 | 68.9 | 127.7 | 14.5 |
| Internal Link Dist (m) | | 71.3 | | | 45.7 | | | 366.0 | | | 230.4 | |
| Turn Bay Length (m) | | | | | | | 220.0 | | 185.0 | 250.0 | | 195.0 |
| Base Capacity (vph) | 242 | 691 | | | 444 | 1421 | 295 | 1452 | 714 | 414 | 1670 | 870 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.78 | 0.24 | | | 0.19 | 0.12 | 0.47 | 0.84 | 0.04 | 0.48 | 0.60 | 0.29 |

Intersection Summary

Cycle Length: 140.5
 Actuated Cycle Length: 110.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 32.1
 Intersection LOS: C
 Intersection Capacity Utilization 77.8%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Hwy 1 & N Davis Rd



5: Hwy 1 & Davis Rd

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 10 | 0 | 41 | 0 | 1 | 1 | 88 | 1235 | 2 | 10 | 974 | 53 |
| Future Volume (Veh/h) | 10 | 0 | 41 | 0 | 1 | 1 | 88 | 1235 | 2 | 10 | 974 | 53 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 11 | 0 | 45 | 0 | 1 | 1 | 96 | 1342 | 2 | 11 | 1059 | 58 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (m) | | | | | | | | | | | | |
| Walking Speed (m/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage (veh) | | | | | | | | | | | | |
| Upstream signal (m) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1944 | 2615 | 530 | 2086 | 2615 | 671 | 1059 | | | 1342 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1944 | 2615 | 530 | 2086 | 2615 | 671 | 1059 | | | 1342 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 66 | 100 | 91 | 100 | 95 | 100 | 85 | | | 98 | | |
| cM capacity (veh/h) | 33 | 20 | 494 | 24 | 20 | 399 | 653 | | | 509 | | |
| Direction, Lane # | EB 1 | WB 1 | WB 2 | NB 1 | NB 2 | NB 3 | NB 4 | SB 1 | SB 2 | SB 3 | SB 4 | |
| Volume Total | 56 | 1 | 1 | 96 | 671 | 671 | 2 | 11 | 530 | 530 | 58 | |
| Volume Left | 11 | 0 | 0 | 96 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | |
| Volume Right | 45 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 58 | |
| cSH | 131 | 20 | 399 | 653 | 1700 | 1700 | 1700 | 509 | 1700 | 1700 | 1700 | |
| Volume to Capacity | 0.43 | 0.05 | 0.00 | 0.15 | 0.39 | 0.39 | 0.00 | 0.02 | 0.31 | 0.31 | 0.03 | |
| Queue Length 95th (m) | 14.2 | 1.1 | 0.1 | 3.9 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | |
| Control Delay (s) | 51.7 | 194.8 | 14.0 | 11.5 | 0.0 | 0.0 | 0.0 | 12.2 | 0.0 | 0.0 | 0.0 | |
| Lane LOS | F | F | B | B | | | | B | | | | |
| Approach Delay (s) | 51.7 | 104.4 | | 0.8 | | | | 0.1 | | | | |
| Approach LOS | F | F | | | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| Average Delay | | | 1.7 | | | | | | | | | |
| Intersection Capacity Utilization | | | 61.4% | | ICU Level of Service | | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |

6: Hwy 1 & Thicke Rd/Edgelow Rd



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|-----|------|-------|-----|-------|-------|-----|-------|--------|-------|
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↕ | | ↗ | ↕ | ↗ |
| Traffic Volume (vph) | 53 | 1 | 2 | 1 | 1 | 4 | 17 | 1260 | 3 | 3 | 975 | 13 |
| Future Volume (vph) | 53 | 1 | 2 | 1 | 1 | 4 | 17 | 1260 | 3 | 3 | 975 | 13 |
| Satd. Flow (prot) | 0 | 1791 | 0 | 0 | 1700 | 0 | 1789 | 3579 | 0 | 1789 | 3579 | 1601 |
| Flt Permitted | | 0.765 | | | 0.928 | | 0.263 | | | 0.175 | | |
| Satd. Flow (perm) | 0 | 1435 | 0 | 0 | 1591 | 0 | 495 | 3579 | 0 | 330 | 3579 | 1601 |
| Satd. Flow (RTOR) | | 2 | | | 4 | | | | | | | 35 |
| Lane Group Flow (vph) | 0 | 61 | 0 | 0 | 6 | 0 | 18 | 1373 | 0 | 3 | 1060 | 14 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | 6 |
| Total Split (s) | 25.7 | 25.7 | | 25.7 | 25.7 | | 57.4 | 57.4 | | 58.1 | 58.1 | 58.1 |
| Total Lost Time (s) | | 5.7 | | | 5.7 | | 6.6 | 6.6 | | 6.6 | 6.6 | 6.6 |
| Act Effct Green (s) | | 8.9 | | | 8.9 | | 48.0 | 48.0 | | 48.0 | 48.0 | 48.0 |
| Actuated g/C Ratio | | 0.15 | | | 0.15 | | 0.81 | 0.81 | | 0.81 | 0.81 | 0.81 |
| v/c Ratio | | 0.28 | | | 0.02 | | 0.04 | 0.47 | | 0.01 | 0.37 | 0.01 |
| Control Delay | | 29.4 | | | 20.0 | | 4.2 | 4.9 | | 4.0 | 4.1 | 0.5 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 29.4 | | | 20.0 | | 4.2 | 4.9 | | 4.0 | 4.1 | 0.5 |
| LOS | | C | | | B | | A | A | | A | A | A |
| Approach Delay | | 29.4 | | | 20.0 | | | 4.9 | | | 4.1 | |
| Approach LOS | | C | | | B | | | A | | | A | |
| Queue Length 50th (m) | | 6.8 | | | 0.2 | | 0.6 | 36.3 | | 0.1 | 24.6 | 0.0 |
| Queue Length 95th (m) | | 17.7 | | | 3.3 | | 2.6 | 59.3 | | 0.9 | 40.5 | 0.6 |
| Internal Link Dist (m) | | 76.7 | | | 10.6 | | | 788.3 | | | 1015.2 | |
| Turn Bay Length (m) | | | | | | | 160.0 | | | 175.0 | | 175.0 |
| Base Capacity (vph) | | 510 | | | 567 | | 418 | 3025 | | 278 | 3025 | 1358 |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.12 | | | 0.01 | | 0.04 | 0.45 | | 0.01 | 0.35 | 0.01 |

Intersection Summary

Cycle Length: 83.8
 Actuated Cycle Length: 59.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization 55.0%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 6: Hwy 1 & Thicke Rd/Edgelow Rd

